

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Formosa Plastics Corporation, Texas

AUTHORIZING THE OPERATION OF

Traffic Facilities

Plastics Materials

LOCATED AT

Calhoun County, Texas

Latitude 28° 41' 20" Longitude 96° 32' 50"

Regulated Entity Number: RN100218973

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O1955 Issuance Date: _____

For the Commission

Table of Contents

Section	Page
General Terms and Conditions	1
Special Terms and Conditions	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting	1
Additional Monitoring Requirements	9
New Source Review Authorization Requirements	9
Compliance Requirements.....	10
Risk Management Plan	11
Protection of Stratospheric Ozone	11
Permit Location.....	12
Permit Shield (30 TAC § 122.148)	12
Attachments	13
Applicable Requirements Summary	14
Additional Monitoring Requirements	55
Permit Shield.....	64
New Source Review Authorization References.....	81
Appendix A	86
Acronym List	87
Appendix B	88
Major NSR Summary Table	89

General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
 - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
 - E. Emission units subject to 40 CFR Part 63, Subparts F, G, H, Y, EEEE, and ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § § 113.110, 113.120, 113.130, 113.300, 113.880, and 113.1090, which incorporate the 40 CFR Part 63 Subparts by reference.
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)
 - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(1)(E)
- (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
- (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
 - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
 - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum

required value does not constitute creation of an alternative fuel.

- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement.

However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- C. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: "Storage of Volatile Organic Compounds," the permit holder shall comply with the requirements of 30 TAC § 115.112(c)(1).
- 5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)

- C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)
 - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
6. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 61.05 (relating to Prohibited Activities)
 - B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)
 - C. Title 40 CFR § 61.09 (relating to Notification of Start-up)
 - D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)
 - E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)
 - F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)
 - G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)
 - H. Title 40 CFR § 61.15 (relating to Modification)
 - I. Title 40 CFR § 61.19 (relating to Circumvention)
7. For the benzene transfer operations to and from marine vessels specified in 40 CFR Part 61, Subpart BB, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.302(e) (relating to Standards)
 - B. Title 40 CFR § 61.303(f) (relating to Monitoring Requirements)
 - C. Title 40 CFR § 61.304(f) (relating to Test Methods and Procedures)

- D. Title 40 CFR § 61.305(g) - (h) (relating to Reporting and Recordkeeping)
8. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.342(c)(1)(i) - (iii) (relating to Standards: General)
 - B. Title 40 CFR § 61.342(g) (relating to Standards: General)
 - C. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)
 - D. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)
 - E. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)
 - F. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
 - G. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)
 - H. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)
 - I. Waste generated by remediation activities at these facilities are subject to the requirements identified under 40 CFR § 61.342 for treatment and management of waste
9. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
10. For the chemical manufacturing process specified in 40 CFR Part 63, Subpart F, the permit holder shall comply with 40 CFR § 63.103(a) (relating to General Compliance, Reporting, and Recordkeeping Provisions) (Title 30 TAC Chapter 113, Subchapter C, § 113.110 incorporated by reference).
11. For the chemical manufacturing facilities subject to leak detection requirements in 40 CFR Part 63, Subpart G, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
- A. General Leak Detection Requirements:
 - (i) Title 40 CFR § 63.148(d)(1) - (3), and (e) (relating to Leak Inspection Provisions)

- (ii) Title 40 CFR § 63.148(c), (g), (g)(2), (h), and (h)(2) (relating to Leak Inspection Provisions), for monitoring and testing requirements
 - (iii) Title 40 CFR §§ 63.148(g)(2), (h)(2), (i)(1) - (2), (i)(4)(i) - (viii), (i)(5), and 63.152(a)(1) - (5), for recordkeeping requirements
 - (iv) Title 40 CFR §§ 63.148(j), 63.151(a)(6)(i) - (iii), (b)(1) - (2), (j)(1) - (3), 63.152(a)(1) - (5), (b), (b)(1)(i) - (ii), and (b)(4), for reporting requirements
- B. For closed vent system or vapor collection systems constructed of hard piping:
 - (i) Title 40 CFR § 63.148(b)(1)(ii) (relating to Leak Inspection Provisions), for monitoring and testing requirements
 - (ii) Title 40 CFR § 63.148(i)(6) (relating to Leak Inspection Provisions), for recordkeeping requirements
- 12. For the operations pertaining to the loading and unloading of marine tank vessels specified in 40 CFR Part 63, Subpart Y, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.300 incorporated by reference):
 - A. Title 40 CFR § 63.560(c) (relating to Designation of Affected Source), for applicability of the General Provisions of Subpart A
 - B. Title 40 CFR § 63.563(a)(4) (relating to Compliance and Performance Testing), for vapor tightness requirements of the marine vessels
 - C. Title 40 CFR § 63.564(a)(1) and (d) (relating to Monitoring Requirements)
 - D. Title 40 CFR § 63.565(a) (relating to Test Methods and Procedures), for performance testing requirements
 - E. Title 40 CFR § 63.565(c) (relating to Test Methods and Procedures), for vapor tightness requirements of the marine vessels
 - F. Title 40 CFR § 63.566 (relating to Construction and Reconstruction)
 - G. Title 40 CFR § 63.567(a) - (b) and (h) - (i) (relating to Reporting and Recordkeeping Requirements)
- 13. For miscellaneous chemical process facilities subject to maintenance wastewater requirements as specified in 40 CFR § 63.2485, Table 7, the permit holder shall comply with the requirements of 40 CFR § 63.105 (relating to Maintenance Wastewater Requirements) (Title 30 TAC Chapter 113, Subchapter C, § 113.890 incorporated by reference).

Additional Monitoring Requirements

14. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “Periodic Monitoring Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

15. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
 - A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield
16. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
17. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit’s compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made

readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

18. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
19. Use of Discrete Emission Credits to comply with the applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
 - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

20. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

21. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.
 - A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.
 - B. The permit holder shall comply with 40 CFR Part 82, Subpart A for controlling the production, transformation, destruction, export or import of a controlled (ozone-depleting) substance or product as specified in 40 CFR § 82.1 - § 82.13 and the applicable Part 82 Appendices.
 - C. The permit holder shall comply with the following 40 CFR Part 82, Subpart E requirements for labeling products using ozone-depleting substances:
 - (i) Title 40 CFR § 82.100 (relating to Purpose)
 - (ii) Title 40 CFR § 82.102(a)(1) - (3), (b), (c) (relating to Applicability);
 - (iii) Title 40 CFR § 82.104 (relating to Definitions)
 - (iv) Title 40 CFR § 82.106 - 112 (relating to Warning Statements and Labels)
 - (v) Title 40 CFR § 82.114 (relating to Labeling Containers of Controlled [ozone - depleting] Substances)

- (vi) Title 40 CFR § 82.116 (relating to Incorporation of Products Manufactured with Controlled [ozone-depleting] Substances)
 - (vii) Title 40 CFR § 82.120 (relating to Petitions)
 - (viii) Title 40 CFR § 82.122 (relating Certification, Recordkeeping, and Notice requirements)
 - (ix) Title 40 CFR § 82.124 (relating to Prohibitions)
- D. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.
- E. The permit holder shall comply with 40 CFR Part 82, Subpart A, § 82.13 related to recordkeeping and reporting requirements for the production and consumption of ozone depleting substances.

Permit Location

22. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

23. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary	15
---------------------------	-----------

Applicable Requirements Summary	19
--	-----------

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
1018	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
1018	FLARES	N/A	60A-3	40 CFR Part 60, Subpart A	No changing attributes.
8F-Do3	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
8F-Do3	FLARES	N/A	60A-1	40 CFR Part 60, Subpart A	No changing attributes.
8F-Do4	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
8F-Do4	FLARES	N/A	60A-2	40 CFR Part 60, Subpart A	No changing attributes.
8F-Do5	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
8F-Do5	FLARES	N/A	60A-2	40 CFR Part 60, Subpart A	No changing attributes.
8F-Do6	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
8F-Do6	FLARES	N/A	60A-2	40 CFR Part 60, Subpart A	No changing attributes.
8F-Do7	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
8FD-FUGDOCK	FUGITIVE EMISSION UNITS	N/A	60VV-2	40 CFR Part 60, Subpart VV	No changing attributes.
8FD-FUGDOCK	FUGITIVE EMISSION UNITS	N/A	61J-2	40 CFR Part 61, Subpart J	No changing attributes.
8FD-FUGDOCK	FUGITIVE EMISSION UNITS	N/A	61V-2	40 CFR Part 61, Subpart V	No changing attributes.
8FD-FUGDOCK	FUGITIVE EMISSION UNITS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
8FD-FUGDOCK	FUGITIVE EMISSION UNITS	N/A	63H-2	40 CFR Part 63, Subpart H	No changing attributes.
8FD-FUGINLD	FUGITIVE EMISSION UNITS	N/A	60VV-3	40 CFR Part 60, Subpart VV	No changing attributes.
8FD-FUGINLD	FUGITIVE EMISSION UNITS	N/A	63H-3	40 CFR Part 63, Subpart H	No changing attributes.
8FD-FUGTANK	FUGITIVE EMISSION UNITS	N/A	60VV-1	40 CFR Part 60, Subpart VV	No changing attributes.
8FD-FUGTANK	FUGITIVE EMISSION UNITS	N/A	61J-1	40 CFR Part 61, Subpart J	No changing attributes.
8FD-FUGTANK	FUGITIVE EMISSION UNITS	N/A	61V-1	40 CFR Part 61, Subpart V	No changing attributes.
8FD-FUGTANK	FUGITIVE EMISSION UNITS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
8FD-FUGTANK	FUGITIVE EMISSION UNITS	N/A	63H-1	40 CFR Part 63, Subpart H	No changing attributes.
8FP-D20A	SRIC ENGINES	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
8FP-D20B	SRIC ENGINES	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
8FT-Do1	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
8FT-Do1	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
8FT-Do2	STORAGE TANKS/VESSELS	N/A	63G-2	40 CFR Part 63, Subpart G	No changing attributes.
8FT-Do3	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
8FT-Do3	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
8FT-Do9A	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
8FT-Do9B	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
8FT-D13	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
8FT-D28	STORAGE TANKS/VESSELS	N/A	R5112-5	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
8FT-D28	STORAGE TANKS/VESSELS	N/A	60Kb-1	40 CFR Part 60, Subpart Kb	No changing attributes.
BTX_B	LOADING/UNLOADING OPERATIONS	N/A	61BB-1	40 CFR Part 61, Subpart BB	No changing attributes.
DT-403	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-403	STORAGE TANKS/VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
DT-404	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DT-404	STORAGE TANKS/VESSELS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
EDC_S/B	LOADING/UNLOADING OPERATIONS	N/A	63Y-1	40 CFR Part 63, Subpart Y	No changing attributes.
FT-D10	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
FT-D10	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
FT-D18	STORAGE TANKS/VESSELS	N/A	R5112-3	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
FT-D18	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.
FT-D19	STORAGE TANKS/VESSELS	N/A	R5112-4	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
FT-D19	STORAGE TANKS/VESSELS	N/A	63EEEE-1	40 CFR Part 63, Subpart EEEE	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
IBLFUG	FUGITIVE EMISSION UNITS	N/A	60VV-5	40 CFR Part 60, Subpart VV	No changing attributes.
IBLFUG	FUGITIVE EMISSION UNITS	N/A	63H-4	40 CFR Part 63, Subpart H	No changing attributes.
PF-BARGFUG	LOADING/UNLOADING OPERATIONS	N/A	61BB-1	40 CFR Part 61, Subpart BB	No changing attributes.
PF-Lo2	LOADING/UNLOADING OPERATIONS	N/A	R5211-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
PF-SHIPFUG	LOADING/UNLOADING OPERATIONS	N/A	63Y-2	40 CFR Part 63, Subpart Y	No changing attributes.
PPU-FUG-1	FUGITIVE EMISSION UNITS	N/A	60VV-4	40 CFR Part 60, Subpart VV	No changing attributes.
PY_GAS_B	LOADING/UNLOADING OPERATIONS	N/A	61BB-1	40 CFR Part 61, Subpart BB	No changing attributes.
TRAFFIC	CHEMICAL MANUFACTURING PROCESS	N/A	63F-1	40 CFR Part 63, Subpart F	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
1018	EU	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
1018	CD	60A-3	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None
8F-Do3	EU	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
8F-Do3	CD	60A-1	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None
8F-Do4	EU	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8F-Do4	CD	60A-2	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
8F-Do5	EU	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
8F-Do5	CD	60A-2	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
8F-Do6	EU	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
8F-Do6	CD	60A-2	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8F-Do7	EU	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
8FD-FUGDOCK	EU	60VV-2	VOC	40 CFR Part 60, Subpart VV	§ 60.482-4(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-4(b)(1) § 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGDOCK	EU	60VV-2	VOC	40 CFR Part 60, Subpart VV	§ 60.482-5(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k)	Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1(c) and paragraph (c) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGDOCK	EU	60VV-2	VOC	40 CFR Part 60, Subpart VV	§ 60.482-7(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for valves in gas/vapor service and in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGDOCK	EU	60VV-2	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	For flanges and other connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGDOCK	EU	61J-2	BENZENE	40 CFR Part 61, Subpart J	§ 61.112(a) § 61.112(b)	Each owner or operator subject to this subpart shall comply with the requirements of 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources).	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGDOCK	EU	61V-2	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-5 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for sampling connection systems. §61.242-5(a)-(c)	[G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGDOCK	EU	61V-2	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-6 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for open-ended valves or lines. §61.242-6(a)-(c)	[G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGDOCK	EU	61V-2	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-7 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10 [G]§ 61.243-1 [G]§ 61.243-2	Comply with standards for valves. §61.242-7(a)-(h)	[G]§ 61.242-7 [G]§ 61.243-1 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(f) [G]§ 61.246(g) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) § 61.247(d) [G]§ 61.247(e)
8FD-FUGDOCK	EU	61V-2	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-8 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for flanges and other connectors. § 61.242-8(a)-(d)	[G]§ 61.242-8 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGDOCK	EU	61V-2	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-11(f) § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10 [G]§ 61.242-11(f) [G]§ 61.242-11(g) § 61.242-11(h) § 61.242-11(i) [G]§ 61.242-11(j) [G]§ 61.242-11(k) § 61.242-11(m)	Except as provided in §61.242-11(i)-(k), each closed vent system shall be inspected according to the procedures and schedule specified in 61.242-11(f)(1) and (2), as applicable. § 61-242-11(f)(1)-(2)	[G]§ 61.242-11(f) [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.242-11(l) [G]§ 61.246(a) [G]§ 61.246(d) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGDOCK	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE
8FD-FUGDOCK	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGDOCK	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGDOCK	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGDOCK	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief devices in liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGDOCK	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGDOCK	EU	63H-2	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-4(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-4(b)(1) § 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-5(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k)	Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1(c) and paragraph (c) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-6(a)(1) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-6(a)(2) § 60.482-6(b) § 60.482-6(c) § 60.482-6(d) § 60.482-6(e) § 60.486(k)	Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c) and paragraphs (d) and (e) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-7(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for valves in gas/vapor service and in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k)	For pumps in heavy liquid service, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	For valves in heavy liquid service, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGINLD	EU	60VV-3	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	For flanges and other connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pumps in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Valves in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Open-ended valves or lines. §63.167(a)-(e).	[G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGINLD	EU	63H-3	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGTANK	EU	60VV-1	VOC	40 CFR Part 60, Subpart VV	§ 60.482-2(b)(1) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-2(a)(2) [G]§ 60.482-2(b)(2) § 60.482-2(c)(1) [G]§ 60.482-2(c)(2) § 60.482-2(d) [G]§ 60.482-2(d)(1) § 60.482-2(d)(2) § 60.482-2(d)(3) [G]§ 60.482-2(d)(4) [G]§ 60.482-2(d)(5) [G]§ 60.482-2(d)(6) [G]§ 60.482-2(e) § 60.482-2(f) [G]§ 60.482-2(g) § 60.482-2(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for pumps in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-2(a)(1) [G]§ 60.482-2(b)(2) [G]§ 60.482-2(d)(4) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGTANK	EU	60VV-1	VOC	40 CFR Part 60, Subpart VV	§ 60.482-4(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-4(b)(1) § 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGTANK	EU	60VV-1	VOC	40 CFR Part 60, Subpart VV	§ 60.482-5(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k)	Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1(c) and paragraph (c) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGTANK	EU	60VV-1	VOC	40 CFR Part 60, Subpart VV	§ 60.482-7(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for valves in gas/vapor service and in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
8FD-FUGTANK	EU	60VV-1	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	For flanges and other connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGTANK	EU	61J-1	BENZENE	40 CFR Part 61, Subpart J	§ 61.112(a) § 61.112(b)	Each owner or operator subject to this subpart shall comply with the requirements of 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources).	None	None	None
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-2 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for pumps. §61.242-2(a)-(g)	[G]§ 61.242-2 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(h) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-5 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for sampling connection systems. §61.242-5(a)-(c)	[G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-6 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for open-ended valves or lines. §61.242-6(a)-(c)	[G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-7 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10 [G]§ 61.243-1 [G]§ 61.243-2	Comply with standards for valves. §61.242-7(a)-(h)	[G]§ 61.242-7 [G]§ 61.243-1 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(f) [G]§ 61.246(g) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) § 61.247(d) [G]§ 61.247(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-8 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for flanges and other connectors. § 61.242-8(a)-(d)	[G]§ 61.242-8 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-11(f) § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10 [G]§ 61.242-11(f) [G]§ 61.242-11(g) § 61.242-11(h) § 61.242-11(i) [G]§ 61.242-11(j) [G]§ 61.242-11(k) § 61.242-11(m)	Except as provided in §61.242-11(i)-(k), each closed vent system shall be inspected according to the procedures and schedule specified in 61.242-11(f)(1) and (2), as applicable. § 61-242-11(f)(1)-(2)	[G]§ 61.242-11(f) [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.242-11(l) [G]§ 61.246(a) [G]§ 61.246(d) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGTANK	EU	61V-1	VHAP	40 CFR Part 61, Subpart V	§ 61.242-11(d) § 60.18 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) § 61.242-11(e) § 61.242-11(m)	Flares shall be used to comply with this subpart shall comply with the requirements of §60.18.	[G]§ 61.245(d) [G]§ 61.245(e)	[G]§ 61.246(a) [G]§ 61.246(d) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
8FD-FUGTANK	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief devices in liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FD-FUGTANK	EU	63H-1	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
8FP-D20A	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b) § 63.6640(f)(1) [G]§ 63.6640(f)(2) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FP-D20B	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b) § 63.6640(f)(1) [G]§ 63.6640(f)(2) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)
8FT-Do1	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1) § 115.112(c)(2) § 115.112(c)(2)(A) § 115.114(c)(2)(A)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	§ 115.114(c)(2)(A)	None	§ 115.114(c)(2)(B)
8FT-Do1	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE
8FT-Do2	EU	63G-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(a)(3)	Group 2 tanks not using emissions averaging as prescribed by §63.150 shall use record keeping methods in §63.123(a). Not required to comply with §63.119 to §63.123.	None	§ 63.123(a)	§ 63.152(c)(4)(iii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FT-Do3	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1) § 115.112(c)(2) § 115.112(c)(2)(A) § 115.114(c)(2)(A)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	§ 115.114(c)(2)(A)	None	§ 115.114(c)(2)(B)
8FT-Do3	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE
8FT-Do9A	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FT-Do9B	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE
8FT-D13	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE
8FT-D28	EU	R5112-5	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
8FT-D28	EU	60Kb-1	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(3) § 60.18	Storage vessels specified in §60.112b(a) and equipped with a closed vent system/control device are to meet the specifications of §60.112b(a)(3)(i)-(ii).	§ 60.113b(d) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) [G]§ 60.485(b) ** See Periodic Monitoring Summary	§ 60.115b § 60.115b(d)(2) § 60.116b(a) § 60.116b(b)	§ 60.115b § 60.115b(d)(1) § 60.115b(d)(3)
BTX_B	EU	61BB-1	BENZENE	40 CFR Part 61, Subpart BB	§ 61.300(b)	Any affected facility as per § 61.300(a), loading only liquid containing < 70 weight-percent benzene is exempt from this subpart, except for the recordkeeping and reporting in § 61.305(i).	None	[G]§ 61.305(i)	[G]§ 61.305(i)
DT-403	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
DT-403	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
DT-404	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
DT-404	EU	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) [G]§ 63.148(d) § 63.148(e)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) § 63.120(d)(6) § 63.148(b)(1)(i) § 63.148(b)(1)(ii) [G]§ 63.148(c) § 63.148(g) § 63.148(g)(2) § 63.148(h) § 63.148(h)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) § 63.148(g)(2) § 63.148(h)(2) § 63.148(i)(1) § 63.148(i)(2) [G]§ 63.148(i)(4) § 63.148(i)(5) § 63.148(i)(6) [G]§ 63.152(a)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
EDC_S/B	EU	63Y-1	EXEMPT	40 CFR Part 63, Subpart Y	§ 63.560(a)(2) § 153.282 § 63.560(a)(4)	Existing sources with emissions less than 10 and 25 tons must meet the submerged fill standards of 46 CFR 153.282. This submerged fill requirement does not apply to petroleum refineries.	§ 63.565(l)	§ 63.567(j)(4)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FT-D10	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
FT-D10	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE
FT-D18	EU	R5112-3	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
FT-D18	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FT-D19	EU	R5112-4	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(c)(1)	Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b).	** See Periodic Monitoring Summary	None	None
FT-D19	EU	63EEEE-1	112(B) HAPS	40 CFR Part 63, Subpart EEEE	§ 63.2338(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart EEEE	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart EEEE

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-2(b)(1) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-2(a)(2) [G]§ 60.482-2(b)(2) § 60.482-2(c)(1) [G]§ 60.482-2(c)(2) § 60.482-2(d) [G]§ 60.482-2(d)(1) § 60.482-2(d)(2) § 60.482-2(d)(3) [G]§ 60.482-2(d)(4) [G]§ 60.482-2(d)(5) [G]§ 60.482-2(d)(6) [G]§ 60.482-2(e) § 60.482-2(f) [G]§ 60.482-2(g) § 60.482-2(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for pumps in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-2(a)(1) [G]§ 60.482-2(b)(2) [G]§ 60.482-2(d)(4) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-3(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-3(b) § 60.482-3(c) § 60.482-3(d) § 60.482-3(e)(1) § 60.482-3(e)(2) § 60.482-3(f) § 60.482-3(g)(1) § 60.482-3(g)(2) § 60.482-3(h) [G]§ 60.482-3(i) § 60.482-3(j) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482-1(c) and paragraphs (h), (i), and (j) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-4(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-4(b)(1) § 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-5(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k)	Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1(c) and paragraph (c) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-7(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for valves in gas/vapor service and in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	For flanges and other connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
IBLFUG	EU	60VV-5	VOC	40 CFR Part 60, Subpart VV	§ 60.482-10(d) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-10(m) § 60.486(k)	Flares used to comply with this subpart shall comply with the requirements of §60.18.	§ 60.482-10(e) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.164 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Compressors. §63.164(a)-(i)	[G]§ 63.164 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
IBLFUG	EU	63H-4	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PF-BARGFUG	EU	61BB-1	BENZENE	40 CFR Part 61, Subpart BB	§ 61.300(b)	Any affected facility as per § 61.300(a), loading only liquid containing < 70 weight-percent benzene is exempt from this subpart, except for the recordkeeping and reporting in § 61.305(i).	None	[G]§ 61.305(i)	[G]§ 61.305(i)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PF-Lo2	EU	R5211-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division except as specified.	§ 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
PF-SHIPFUG	EU	63Y-2	112(B) HAPS	40 CFR Part 63, Subpart Y	§ 63.562(b) § 63.11 [G]§ 63.562(b)(1) § 63.562(b)(3) [G]§ 63.562(b)(6) § 63.562(e) § 63.562(e)(1) [G]§ 63.562(e)(2) [G]§ 63.562(e)(3) § 63.562(e)(4) § 63.562(e)(5) § 63.562(e)(6) § 63.562(e)(7) [G]§ 63.562(e)(7)(i) § 63.562(e)(7)(ii) § 63.563(a)(2) § 63.563(a)(3)	Marine tank vessel loading operations shall apply MACT standards, except for the VMT source.	[G]§ 63.562(b)(6) [G]§ 63.562(e)(7)(i) § 63.562(e)(7)(ii) § 63.563(b) § 63.563(b)(1) § 63.563(b)(10) § 63.563(b)(3) § 63.563(b)(5) [G]§ 63.563(c) § 63.564(a)(2) § 63.564(a)(3) § 63.564(a)(4) § 63.564(c) § 63.564(f) [G]§ 63.565(b) § 63.565(e) § 63.565(l)	[G]§ 63.562(b)(6) § 63.562(e)(5) [G]§ 63.562(e)(7)(i) § 63.562(e)(7)(ii) § 63.564(f) § 63.565(e) § 63.567(f) [G]§ 63.567(g) § 63.567(j)(1) § 63.567(j)(2) [G]§ 63.567(k)	[G]§ 63.562(b)(6) § 63.562(e)(7)(ii) § 63.567(b)(5)(ii) § 63.567(c) § 63.567(d) § 63.567(e)(1) [G]§ 63.567(e)(2) § 63.567(e)(3) § 63.567(e)(4) § 63.567(e)(5) § 63.567(e)(6) § 63.567(f) § 63.567(j)(3) § 63.567(m) § 63.567(n)(1) § 63.567(n)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-2(b)(1) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-2(a)(2) [G]§ 60.482-2(b)(2) § 60.482-2(c)(1) [G]§ 60.482-2(c)(2) § 60.482-2(d) [G]§ 60.482-2(d)(1) § 60.482-2(d)(2) § 60.482-2(d)(3) [G]§ 60.482-2(d)(4) [G]§ 60.482-2(d)(5) [G]§ 60.482-2(d)(6) [G]§ 60.482-2(e) § 60.482-2(f) [G]§ 60.482-2(g) § 60.482-2(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for pumps in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-2(a)(1) [G]§ 60.482-2(b)(2) [G]§ 60.482-2(d)(4) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-3(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-3(b) § 60.482-3(c) § 60.482-3(d) § 60.482-3(e)(1) § 60.482-3(e)(2) § 60.482-3(f) § 60.482-3(g)(1) § 60.482-3(g)(2) § 60.482-3(h) [G]§ 60.482-3(i) § 60.482-3(j) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482-1(c) and paragraphs (h), (i), and (j) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-4(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-4(b)(1) § 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).	§ 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-5(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k)	Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1(c) and paragraph (c) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-6(a)(1) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-6(a)(2) § 60.482-6(b) § 60.482-6(c) § 60.482-6(d) § 60.482-6(e) § 60.486(k)	Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c) and paragraphs (d) and (e) of this section.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-7(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k)	If an instrument reading of 10,000 ppm or greater is measured for valves in gas/vapor service and in light liquid service, a leak is detected.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-8(b) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k)	For flanges and other connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	[G]§ 60.482-10(g) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) [G]§ 60.482-10(f) § 60.482-10(h) § 60.482-10(i) [G]§ 60.482-10(j) [G]§ 60.482-10(k) § 60.482-10(m) § 60.486(k)	Leaks, as indicated by the specified instrument or by visual inspections, shall be repaired as soon as practicable except as provided in § 60.482-10(h). § 60.482-10(g)(1)-(2)	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
PPU-FUG-1	EU	60VV-4	VOC	40 CFR Part 60, Subpart VV	§ 60.482-10(d) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-10(m) § 60.486(k)	Flares used to comply with this subpart shall comply with the requirements of §60.18.	§ 60.482-10(e) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e)
PY_GAS_B	EU	61BB-1	BENZENE	40 CFR Part 61, Subpart BB	§ 61.300(b)	Any affected facility as per § 61.300(a), loading only liquid containing < 70 weight-percent benzene is exempt from this subpart, except for the recordkeeping and reporting in § 61.305(i).	None	[G]§ 61.305(i)	[G]§ 61.305(i)
TRAFFIC	PRO	63F-1	112(B) HAPS	40 CFR Part 63, Subpart F	§ 63.100(b) [G]§ 63.102(a) [G]§ 63.102(c) § 63.105(d)	Except as provided in paragraphs (b)(4) and (c) of this section, the provisions of subparts F, G, and H apply to chemical manufacturing process units that meet the criteria.	§ 63.103(b)(1) § 63.103(b)(3) § 63.103(b)(4) [G]§ 63.103(b)(5) § 63.103(b)(6)	[G]§ 63.103(c) [G]§ 63.105(b) § 63.105(c) § 63.105(e)	§ 63.103(b)(2) [G]§ 63.103(b)(5) [G]§ 63.103(d)

Additional Monitoring Requirements

Periodic Monitoring Summary.....56

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 8FT-D28	
Control Device ID No.: 8F-Do6	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-5
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Four times per hour	
Averaging Period: n/a	
Deviation Limit: Loss of Pilot Flame	
<p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 8FT-D28	
Control Device ID No.: 8F-Do6	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-1
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: An instrument reading of at least 500 ppm above background.	
Periodic Monitoring Text: Measure and record fugitive emissions from the vapor collection system in accordance with part 60, appendix A, method 21.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 8FT-D28	
Control Device ID No.: 8F-Do6	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-1
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Any defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Periodic Monitoring Text: Visually inspect all components of the vapor collection system for defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: DT-403	
Control Device ID Nos.: 6002A, 6002B, and 6002C	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-2
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a*	
Deviation Limit: Minimum firebox temperature maintained at 1634 F for EPN 6002A, and 1658 F for EPN 6002B, and 1642 F for EPN 6002C.	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.</p>	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: DT-404	
Control Device ID Nos.: 6002A, 6002B, and 6002C	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-2
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a*	
Deviation Limit: Minimum firebox temperature maintained at 1634 F for EPN 6002A, and 1658 F for EPN 6002B, and 1642 F for EPN 6002C.	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.</p>	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: FT-D10	
Control Device ID Nos.: 6002A, 6002B, and 6002C	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-2
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a*	
Deviation Limit: Minimum firebox temperature maintained at 1634 F for EPN 6002A, and 1658 F for EPN 6002B, and 1642 F for EPN 6002C.	
<p>Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.</p>	

*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: FT-D18	
Control Device ID No.: 8F-Do4	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-3
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Four times per hour	
Averaging Period: n/a	
Deviation Limit: Loss of Pilot Flame	
<p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: FT-D19	
Control Device ID No.: 8F-Do5	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-4
Pollutant: VOC	Main Standard: § 115.112(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Four times per hour	
Averaging Period: n/a	
Deviation Limit: Loss of Pilot Flame	
<p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p>	

Permit Shield

Permit Shield 65

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
8DF-20A	N/A	30 TAC Chapter 115, Storage of VOCs	Storage container capacity is less than 1,000 gallons.
8DF-20A	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8DF-20A	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
8DF-20A	N/A	40 CFR Part 60, Subpart Kb	Storage capacity is less than 19,800 gallons.
8DF-20A	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
8DF-20B	N/A	30 TAC Chapter 115, Storage of VOCs	Storage container capacity is less than 1,000 gallons.
8DF-20B	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8DF-20B	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
8DF-20B	N/A	40 CFR Part 60, Subpart Kb	Storage capacity is less than 19,800 gallons.
8DF-20B	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
8F-Do1	N/A	30 TAC Chapter 111, Visible Emissions	The flare is only used during emergency or upset conditions.
8F-Do1	N/A	40 CFR Part 60, Subpart A	The flare is not subject 40 CFR Part 60.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
8F-Do2	N/A	30 TAC Chapter 111, Incineration	The waste burned in the incinerator does not constitute domestic, municipal, commercial or industrial solid waste as defined in 30 TAC §101.1.
8F-Do2	N/A	40 CFR Part 60, Subpart A	The unit is an incinerator, not a flare, and is not subject to §60.18.
8F-Do2	N/A	40 CFR Part 60, Subpart E	This unit does not have a charging rate of more than 45 metric tons/day as stipulated in §60.50(a).
8FD-FUGINLD	N/A	40 CFR Part 61, Subpart J	There are no sources, as listed in 61.110(a), intended to operate in benzene service.
8FD-FUGINLD	N/A	40 CFR Part 61, Subpart V	There are no sources, as listed in 61.240(a), operated in VHAP service.
8F-EG	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
8F-EG	N/A	40 CFR Part 63, Subpart Y	The marine tank vessel loading operation is loading a commodity with a vapor pressure less than 10.3 kPa at standard conditions.
8FP-D20A	N/A	30 TAC Chapter 117, Subchapter B	Not located in an affected county.
8FP-D20B	N/A	30 TAC Chapter 117, Subchapter B	Not located in an affected county.
8FT-Do1	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8FT-Do1	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
8FT-Do1	N/A	40 CFR Part 60, Subpart Kb	Storage tanks are assigned to the OLD affected source and are subject to control under NSPS Kb. FPC may elect to comply only with the requirements of OLD MACT for storage tanks meeting the applicability criteria in Table 2 to OLD MACT.
8FT-Do1	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
8FT-Do2	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
8FT-Do2	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8FT-Do2	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
8FT-Do2	N/A	40 CFR Part 60, Subpart Kb	40 CFR 63, Subpart G applies to this tank. Group 1 and Group 2 storage vessel that are also subject to the provisions of 40 CFR Part 60, Subpart Kb are required to comply only with the provisions of 40 CFR, Subpart G.
8FT-Do2	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
8FT-Do3	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8FT-Do3	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
8FT-Do3	N/A	40 CFR Part 60, Subpart Kb	Storage tanks are assigned to the OLD affected source and are subject to control under NSPS Kb. FPC may elect to comply only with the requirements of OLD MACT for storage tanks meeting the applicability criteria in Table 2 to OLD MACT.
8FT-Do3	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR, 60, 61, or 63 that references this subpart for control of emissions.
8FT-Do9A	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
8FT-Do9A	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8FT-Do9A	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984
8FT-Do9A	N/A	40 CFR Part 60, Subpart Kb	FPC is electing to comply with the control requirements of MACT EEEE.
8FT-Do9A	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
8FT-Do9A	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR, 60, 61, or 63 that references this subpart for control of emissions.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
8FT-D09B	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
8FT-D09B	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8FT-D09B	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
8FT-D09B	N/A	40 CFR Part 60, Subpart Kb	FPC is electing to comply with the control requirements of MACT EEEE.
8FT-D09B	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
8FT-D09B	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR, 60, 61, or 63 that references this subpart for control of emissions.
8FT-D13	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
8FT-D13	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
8FT-D13	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
8FT-D13	N/A	40 CFR Part 60, Subpart Kb	FPC is electing to comply with the control requirements of MACT EEEE.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
8FT-D13	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
8FT-D13	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
8FT-D28	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR Part 60, 61, or 63 that references this subpart for control emissions.
BTX_B	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
C4_B	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	As defined in 115.10, the loading and unloading requirements of 30 TAC Chapter 115 are only applicable to the transfer of volatile organic liquids. C4+ is a gaseous product.
C4_B	N/A	40 CFR Part 63, Subpart Y	The marine tank vessel loading operation is loading a commodity with a vapor pressure less than 10.3 kPa at standard conditions
C9+_B	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
C9+_B	N/A	40 CFR Part 63, Subpart Y	The marine tank vessel loading operation is loading a commodity with a vapor pressure less than 10.3 kPa at standard conditions.
DT-403	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
DT-403	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
DT-403	N/A	40 CFR Part 60, Subpart Kb	40 CFR 63, Subpart G applies to this tank. Group 1 and Group 2 storage vessels that are also subject to provisions of 40 CFR Part 60, Subpart Kb are required to comply only with the provisions of 40 CFR 63, Subpart G.
DT-403	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
DT-404	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
DT-404	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
DT-404	N/A	40 CFR Part 60, Subpart Kb	40 CFR 63, Subpart G applies to this tank. Group 1 and Group 2 storage vessels that are also subject to provisions of 40 CFR Part 60, Subpart Kb are required to comply only with the provisions of 40 CFR 63, Subpart G.
DT-404	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control emissions.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
EDC_S/B	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
EP-806	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
EP-806	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
EP-806	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
EP-806	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
EP-806	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
EP-806	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
EP-807	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
EP-807	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19 1978.
EP-807	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
EP-807	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
EP-807	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
EP-807	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
EP-808	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
EP-808	N/A	40 CFR Part 60, Subpart K	Tank constructed after May 19, 1978.
EP-808	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
EP-808	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
EP-808	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
EP-808	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
EP-809	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
EP-809	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978
EP-809	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
EP-809	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
EP-809	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
EP-809	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
FT-D10	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
FT-D10	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
FT-D10	N/A	40 CFR Part 60, Subpart Kb	Storage tanks are assigned to the OLD affected source and are subject to control under NSPS Kb. FPC may elect to comply only with the requirements of OLD MACT for storage tanks meeting the applicability criteria in Table 2 to OLD MACT.
FT-D10	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
FT-D10	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
FT-D14	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
FT-D14	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
FT-D14	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
FT-D14	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
FT-D14	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
FT-D14	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
FT-D18	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
FT-D18	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
FT-D18	N/A	40 CFR Part 60, Subpart Kb	FPC is electing to comply with the control requirements of MACT EEEE.
FT-D18	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
FT-D19	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
FT-D19	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
FT-D19	N/A	40 CFR Part 60, Subpart Kb	FPC is electing to comply with the control requirements of MACT EEEE.
FT-D19	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
FT-D19	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
GT-809B	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
GT-809B	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978
GT-809B	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.
GT-809B	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
GT-809B	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
GT-809B	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 that references this subpart for control of emissions.
GT-811	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank is located in Calhoun County and storing VOC with a true vapor pressure less than 1.5 psia.
GT-811	N/A	40 CFR Part 60, Subpart K	Tank was constructed after May 19, 1978.
GT-811	N/A	40 CFR Part 60, Subpart Ka	Tank was constructed after July 23, 1984.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GT-811	N/A	40 CFR Part 60, Subpart Kb	The tank is over 151 cubic meters in volume and has a vapor pressure less than 3.5 kPa.
GT-811	N/A	40 CFR Part 63, Subpart G	Where a tank is located at a tank farm, it is assigned to HON Unit that utilizes the tank if there is not intervening storage tank for that product. There is an intervening storage tank for this product; therefore, 40 CFR 63, Subpart G does not apply
GT-811	N/A	40 CFR Part 63, Subpart OO	The tank is not subject to another subpart within 40 CFR 60, 61, or 63 the references this subpart for control of emissions.
IBLFUG	N/A	40 CFR Part 61, Subpart J	There are no sources, as listed in §61.110(a), intended to operate in benzene service.
IBLFUG	N/A	40 CFR Part 61, Subpart V	There are no sources, as listed in §61.420(a), operated in VHAP service.
PF-BARGFUG	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
PF-BARGFUG	N/A	40 CFR Part 63, Subpart G	Loading operation does not meet the definition of a transfer operation.
PF-BARGFUG	N/A	40 CFR Part 63, Subpart Y	40 CFR Part 63, Subpart Y (MACT Y) does not apply to emissions from marine tank vessel loading operations that are subject to and comply with 40 CFR Part 61, Subpart BB.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
PF-Lo2	N/A	40 CFR Part 63, Subpart Y	The marine tank vessel loading operation is loading a commodity with a vapor pressure less than 10.3 kPa standard conditions.
PFO-Lo1	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
PFO-Lo1	N/A	40 CFR Part 63, Subpart Y	The marine tank vessel loading operation is loading a commodity with a vapor pressure less than 10.3 kPa at standard conditions.
PF-SHIPFUG	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
PF-SHIPFUG	N/A	40 CFR Part 63, Subpart G	Loading operation does not meet the definition of a transfer operation.
PPU-FUG-1	N/A	40 CFR Part 61, Subpart J	There are no sources, as listed in 61.110(a), intended to operate in benzene service.
PPU-FUG-1	N/A	40 CFR Part 61, Subpart V	There are no sources, as listed in 61.240(a), operated in VHAP service.
PY_GAS_B	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
PY_GAS_B	N/A	40 CFR Part 63, Subpart Y	MACT Y standards do not apply to benzene emissions from marine tank vessel loading operations that are subject to and complying with 40 CFR Part 61, Subpart BB

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
TRFDSLUG	N/A	40 CFR Part 60, Subpart VV	The Traffic Facility Fire Water System does not produce any of the chemicals listed in §60.489 and is therefore not an affected facility per the definition of a process unit.
TRFDSLUG	N/A	40 CFR Part 61, Subpart J	There are no sources, as listed in §61.110(a), intended to operate in benzene service.
TRFDSLUG	N/A	40 CFR Part 61, Subpart V	There are no sources, as listed in §61.420(a), operated in VHAP service.
TRFDSLUG	N/A	40 CFR Part 63, Subpart H	The Traffic Facility Fire Water System will not operate in hazardous air pollutant (HAP) service.
W_OIL_B	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Not applicable to marine loading sources in Calhoun County.
W_OIL_B	N/A	40 CFR Part 63, Subpart G	A transfer operation is defined as loading into a tank truck or railcar. The wash oil is loaded into a barge; therefore, this transfer operation does not meet the definition of a transfer operation as defined in 63.101 and MACT G does not apply.
W_OIL_B	N/A	40 CFR Part 63, Subpart Y	The marine tank vessel loading operation is loading a commodity with a vapor pressure less than 10.3 kPa at standard conditions.

New Source Review Authorization References

New Source Review Authorization References 82

New Source Review Authorization References by Emission Unit..... 83

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1226	Issuance Date: 07/03/2013
PSD Permit No.: PSDTX1230	Issuance Date: 11/30/2012
PSD Permit No.: PSDTX1234	Issuance Date: 04/02/2013
PSD Permit No.: PSDTX1236	Issuance Date: 05/28/2013
PSD Permit No.: PSDTX1238	Issuance Date: 05/28/2013
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 19168	Issuance Date: 07/03/2013
Authorization No.: 19198	Issuance Date: 04/02/2013
Authorization No.: 19199	Issuance Date: 05/28/2013
Authorization No.: 19871	Issuance Date: 05/28/2013
Authorization No.: 83763	Issuance Date: 11/30/2012
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 86	Version No./Date: 07/20/1992
Number: 86	Version No./Date: 10/04/1995

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
1018	OLEFINS 1 ELEVATED FLARE	19168, 19871, PSDTX1226, PSDTX1236
8DF-20A	DIESEL STORAGE TANK	19871, PSDTX1236
8DF-20B	DIESEL STORAGE TANK	19871, PSDTX1236
8F-Do1	CHANDELIER FLARE	19871, PSDTX1236
8F-Do2	DOCK INCINERATOR/SCRUBBER/SHIP AND BARGE LOADING	19871, PSDTX1236
8F-Do3	DOCK FLARE/BARGE LOADING	19871, PSDTX1236
8F-Do4	FT-D18 FLARE	19871, PSDTX1236
8F-Do5	BTX TANK FLARE	19871, PSDTX1236
8F-Do6	TANK FARM FLARE	19871, PSDTX1236
8F-Do7	DOCK VAPOR COMBUSTOR/BARGE AND SHIP LOADING	19871, PSDTX1236
8FD-FUGDOCK	DOCK PIPING PROCESS FUGITIVES	19871, PSDTX1236
8FD-FUGINLD	INLAND TRAFFIC PROCESS FUGITIVES	19871, PSDTX1236
8FD-FUGTANK	TANK FARM PROCESS FUGITIVES	19871, PSDTX1236
8F-EG	MEG AND DEG LOADING FUGITIVES	19871, PSDTX1236
8FP-D20A	DIESEL FIRE WATER PUMP	19871, PSDTX1236
8FP-D20B	DIESEL FIRE WATER PUMP	19871, PSDTX1236
8FT-Do1	NAPHTHA TANK	19871, PSDTX1236
8FT-Do2	WASH OIL TANK	19871, PSDTX1236

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
8FT-Do3	NAPHTHA TANK	19871, PSDTX1236
8FT-Do9A	MEG TANK	19871, PSDTX1236
8FT-Do9B	MEG TANK	19871, PSDTX1236
8FT-D13	C9+ CUT STORAGE TANK	19871, PSDTX1236
8FT-D28	PYGAS TANK 2	19871, PSDTX1236
BTX_B	BTX LOADING VIA BARGES	19871, PSDTX1236
C4_B	C4 MIX LOADING VIA BARGES	19871, PSDTX1236
C9+_B	C9+CUT LOADING VIA BARGES	19871, PSDTX1236
DT-403	STORAGE TANK	19199, PSDTX1238
DT-404	STORAGE TANK	19199, PSDTX1238
EDC_S/B	EDC LOADING VIA SHIPS AND BARGES	19871, PSDTX1236
EP-806	MEG TANK/ GT806 TANK	19198, PSDTX1234
EP-807	MEG TANK/ GT807 TANK	19198, PSDTX1234
EP-808	DEG TANK/ GT808 TANK	19198, PSDTX1234
EP-809	TEG TANK/ GT809 TANK	19198, PSDTX1234
FT-D10	EDC TANK	19871, PSDTX1236
FT-D14	DIETHYLENE GLYCOL STORAGE TANK	19871, PSDTX1236
FT-D18	PYGAS TANK	19871, PSDTX1236

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
FT-D19	BTX TANK	19871, PSDTX1236
GT-809B	TEG TANK	19871, PSDTX1236
GT-811	DEG TANK	19871, PSDTX1236
IBLFUG	RAILCAR PIPING PROCESS FUGITIVES	19871, PSDTX1236
PF-BARGFUG	BARGE PROCESS LOADING	19871, PSDTX1236
PF-Lo2	EG LOADING FUGITIVES	19871, PSDTX1236
PFO-Lo1	PYROLYSIS FUEL OIL LOADING VIA SHIPS AND BARGES	19871, PSDTX1236
PF-SHIPFUG	SHIP PROCESS LOADING	19871, PSDTX1236
PPU-FUG-1	UNLOADING STATION PROCESS FUGITIVES	19168, PSDTX1226
PY_GAS_B	PYROLYSIS GASOLINE LOADING VIA BARGES	19871, PSDTX1236
TRAFFIC	TRAFFIC	19199, 19871, PSDTX1236, PSDTX1238
TRFDSLFUG	TRAFFIC FACILITY FIRE WATER SYSTEM FUGITIVES	19871, PSDTX1236
W_OIL_B	WASH OIL LOADING VIA BARGES	19871, PSDTX1236

Appendix A

Acronym List	87
---------------------------	-----------

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
COMS	continuous opacity monitoring system
CVS	closed-vent system
D/FW	Dallas/Fort Worth (nonattainment area)
DR	Designated Representative
ELP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
GF	grandfathered
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MMBtu/hr	Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NO _x	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PM	particulate matter
ppmv	parts per million by volume
PSD	prevention of significant deterioration
RO	Responsible Official
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table	89
--------------------------------------	-----------

Major NSR Summary Table

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013							
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
Olefins I Unit							
1001	Pyrolysis Furnace	CO	12.23	35.97	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	47.23	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	31.03	132.73	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	34.03	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	4.69	12.43	25, 31	10, 25, 28, 29, 31	25, 30, 31
1002	Pyrolysis Furnace	CO	12.23	35.97	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	47.23	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	31.03	132.73	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	34.03	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	4.69	12.43	25, 31	10, 25, 28, 29, 31	25, 30, 31
1003	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1004	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31
1005	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31
1006	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1007	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31
1008	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31
1009	Decoke Drum (6)	CO	153.20	27.04	25	25	25, 30
		PM/PM ₁₀	14.10	2.48	6, 25	25	25, 30
		VOC	0.03	0.01	25	25	25, 30
1009B	Pyrolysis Furnace	CO	8.20	35.92	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.20	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	30.30	132.71	25, 26, 27	10, 25, 26, 27, 28, 29	25, 26, 30
		NO _x MSS (8)	33.30	-	36, 37	27, 28, 29, 35, 36, 37	30
		PM ₁₀	3.69	16.16	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.38	1.66		10, 28, 29	30
		VOC	2.67	11.69	25, 31	10, 25, 28, 29, 31	25, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1010B	Pyrolysis Furnace	CO	8.75	28.47	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.75	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	18.75	65.70	25, 26	10, 25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	21.75	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.96	17.34	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.41	1.78		10, 28, 29	30
		VOC	2.31	10.13	25, 31	10, 25, 28, 29, 31	25, 30
1001-1008, 1009B, 1010B	Pyrolysis Furnace Cap	CO MSS	-	19.40	36, 37	10, 28, 29, 35, 36, 37	30
		NO _x MSS	-	-	36, 37	10, 28, 29, 35, 36, 37	30
1010	Cooling Tower	VOC	5.46	23.92	21, 33	21, 33	30, 33
1011	CPI Oil/Water Separator	VOC	2.76	12.09			
1012	MAPD Regenerator 3418F	CO	7.58	0.03			
		VOC	0.24	0.01			
1018	Olefins 1 Flare (7)	CO	14.41	61.83	8, 34	8, 34	30, 34
		CO MSS	6221.16	155.46(9)	8, 36, 37	8, 35, 36, 37	30
		NO _x	2.77	12.13	8, 34	8, 34	30, 34
		NO _x MSS	861.34	21.82 (9)	8, 36, 37	8, 35, 36, 37	30
		SO ₂	0.10	0.05	8, 34	8, 34	30, 34
		VOC	3.96	13.30	8, 33, 34	8, 33, 34	30, 33, 34
		VOC MSS	765.51	155.07 (9)	8, 36, 37, 42	8, 35, 36, 42	30
1020	Naphtha Tank 6401F	VOC	5.99	25.80	22, 33	22, 33	30, 33

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1028	Olefins 1 Fugitives (5)	VOC	28.04	122.83	17, 19, 31, 32, 33	17, 18, 19, 31, 32, 33	17, 30, 31, 32, 33
OL1-MAINT	Olefins 1 Process MSS	VOC MSS	258.12	4.10	8, 36, 37, 42	8, 35, 36, 37, 38, 39, 42	30
1048	Stormwater Filter Backwash Tank 7408F	VOC	1.18	0.03	22	22	30
1050	H ₂ SO ₄ Tank	H ₂ SO ₄	0.58	0.01	22	22	30
1051	Olefins 1 Tank Flare	CO	9.84	23.77	8	8	30
		CO MSS	-	0.01	8, 36, 37	8, 35, 36, 37	30
		NO _x	1.93	5.97	8	8	30
		NO _x MSS	-	0.02	8, 36, 37	8, 35, 36, 37	30
		SO ₂	0.02	0.05	8	8	30
		VOC	0.40	1.23	8, 33	8, 33	30, 33
		VOC MSS	6.73	0.30	8, 36, 37, 42	8, 35, 36, 42	30
7900LJD	Diesel Emergency Generator (52 hours per rolling 12-months)	CO	0.44	0.01	13	14	30
		NO _x	13.40	0.35	13	14	30
		PM ₁₀	0.50	0.01	13	14	30
		SO ₂	2.79	0.07	13	14	30
		VOC	0.08	0.01	13	14	30
7900LJDF	Diesel Storage Tank	VOC	0.06	0.01		22, 24	30
PGCLUBE	Lube Oil Reservoir	VOC	0.21	0.01		24	30
PRCERCLUBE	Lube Oil Reservoir	VOC	0.16	0.01		24	30
3602J1/J2L	Lube Oil Reservoir	VOC	0.21	0.01		24	30
PGCSEAL	Seal Oil Reservoir	VOC	0.21	0.01		24	30
PRCERCSEAL	Seal Oil Reservoir	VOC	0.21	0.01		24	30

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
2412FCC	Sump Carbon Canister	VOC	0.01	0.01		16	30
C29600	Additive Tank	VOC	1.94	0.01		22, 24	30
C29601	Additive Tank	VOC	2.01	0.01		22, 24	30
N83070	Additive Tank	VOC	0.05	0.01		22, 24	30
N83071	Additive Tank	VOC	0.06	0.01		22, 24	30
N79134	Additive Tank	VOC	6.08	0.01		22, 24	30
Olefins II Unit							
1054	Pyrolysis Furnace	CO	12.57	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	47.57	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	20.02	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	23.02	-	36, 37	28, 29, 30, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	4.82	-	25, 31	25, 28, 29, 31	25, 30, 31
1055	Pyrolysis Furnace	CO	12.57	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	47.57	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	20.02	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	23.02	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	4.82	-	25, 31	25, 28, 29, 31	25, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1056	Pyrolysis Furnace	CO	12.57	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	47.57	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	20.02	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	23.02	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	4.82	-	25, 31	25, 28, 29, 31	25, 30, 31
1057	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31
1058	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1059	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31
1060	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31
1061	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1062	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31
1091	Pyrolysis Furnace	CO	8.54	-	25, 26	25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.54	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	19.29	-	25, 26	25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	22.29	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.86	-	5, 25	25, 28, 29	25, 30
		SO ₂	0.40	-		28, 29	30
		VOC	2.80	-	25, 31	25, 28, 29, 31	25, 30, 31
1054-1062, 1091	Pyrolysis Furnaces Annual Caps	CO	-	319.07		10, 28, 29	30
		NO _x	-	720.58		10, 28, 29	30
		PM ₁₀	-	144.32		10, 28, 29	30
		SO ₂	-	14.81		10, 28, 29	30
		VOC	-	106.66	31	10, 28, 29, 31	30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
N1011	Pyrolysis Furnace	CO	8.75	28.47	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.75	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	18.75	65.70	25, 26	10, 25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	21.75	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.96	17.34	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.41	1.78		10, 28, 29	30
		VOC	2.31	10.13	25, 31	10, 25, 28, 29, 31	25, 30, 31
N1012	Pyrolysis Furnace	CO	8.75	28.47	25, 26	10, 25, 26, 28, 29	25, 26, 30
		CO MSS (8)	43.75	-	36, 37	28, 29, 35, 36, 37	30
		NO _x	18.75	65.70	25, 26	10, 25, 26, 28, 29	25, 26, 30
		NO _x MSS (8)	21.75	-	36, 37	28, 29, 35, 36, 37	30
		PM ₁₀	3.96	17.34	5, 25	10, 25, 28, 29	25, 30
		SO ₂	0.41	1.78		10, 28, 29	30
		VOC	2.31	10.13	25, 31	10, 25, 28, 29, 31	25, 30, 31
1054-1062, 1091, N1011, N1013	Pyrolysis Furnace Cap	CO MSS	-	12.90	36, 37	10, 28, 29, 35, 36, 37	30
		NO _x MSS	-	-	36, 37	10, 28, 29, 35, 36, 37	30
1063	Decoke Drum (6)	CO	167.90	34.69	25	25	25, 30
		PM/PM ₁₀	15.42	3.18	6, 25	25	25, 30
		VOC	0.03	0.01	25	25	25, 30
1064	Cooling Tower	VOC	5.28	23.15	21, 33	21, 33	30, 33
1065	CPI Oil/Water Separator	VOC	2.76	12.09			
1066	MAPD Regenerator	CO	7.58	0.03			
		VOC	0.24	0.01			

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1067	Olefins 2 Flare	CO	22.39	98.09	8, 34	8, 34	30, 34
		CO MSS	6221.16	155.46 (9)	8, 36, 37	8, 35, 36, 37	30
		NO _x	4.40	19.25	8, 34	8, 34	30, 34
		NO _x MSS	861.34	21.82 (9)	8, 36, 37	8, 35, 36, 37	30
		SO ₂	0.02	0.11	8, 34	8, 34	30, 34
		VOC	7.55	14.90	8, 33, 34	8, 33, 34	30, 33, 34
		VOC MSS	761.65	155.07 (9)	8, 36, 37, 42	8, 35, 36, 42	30
1068	Olefins 2 Fugitives (5)	VOC	27.28	119.47	17, 19 31, 32, 33	17, 18, 19 31, 32, 33	17, 30, 31, 32, 33
OL2-MAINT	Olefins 2 Process MSS	VOC MSS	237.61	2.40	8, 36, 37, 42	8, 35, 36, 37, 38, 39, 42	30
1085	Fuel Oil Tank N6499FA	VOC	0.83	0.49	22	22	30
1086	Fuel Oil Tank N6499FB	VOC	0.83	0.49	22	22	30
1087	Olefins 2 Tank Flare	CO	12.48	8.70	8	8	30
		CO MSS	16.08	0.39	8, 36, 37	8, 35, 36, 37	30
		NO _x	1.46	6.35	8	8	30
		NO _x MSS	3.12	0.08	8, 36, 37	8, 35, 36, 37	30
		SO ₂	0.02	0.08	8	8	30
		VOC	0.26	0.66	8, 33	8, 33	30, 33
		VOC MSS	45.90	1.13	8, 36, 37, 42	8, 35, 36, 42	30
1088	Wash Oil Day Tank 2410F	VOC	0.91	0.09	22	22	30
1089	Stormwater Recycle Tank N7408F	VOC	1.18	0.03	22	22	30
1090	H ₂ SO ₄ Tank	H ₂ SO ₄	0.58	0.01	22	22	30

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
N7900LJD	Diesel Emergency Generator (52 hours per rolling 12-months)	CO	4.16	0.11	13	14	30
		NO _x	9.13	0.24	13	14	30
		PM ₁₀	0.58	0.02	13	14	30
		SO ₂	1.85	0.05	13	14	30
		VOC	0.10	0.01	13	14	30
NPGCLUBE	Lube Oil Reservoir	VOC	0.21	0.01		24	30
NPRCERCLUB	Lube Oil Reservoir	VOC	0.16	0.01		24	30
N3602JLUBE	Lube Oil Reservoir	VOC	0.21	0.01		24	30
NPGCSEAL	Seal Oil Reservoir	VOC	0.21	0.01		24	30
N2412FCC	Sump Carbon Canister	VOC	0.01	0.01	33	16, 33	30, 33
N5704LF3CC	Zimpro Carbon Canister	VOC	0.04	0.01	33	16, 33	30, 33
N7460LFCC	Polymer Inhibitor Tank Carbon Canister	VOC	0.01	0.01		16	30
N920766	Additive Tank	VOC	1.94	0.01		22, 24	30
N920425	Additive Tank	VOC	2.01	0.01		22, 24	30
N1705L2F	Additive Tank	VOC	0.22	0.01		22, 24	30
N1705L5F	Additive Tank	VOC	0.22	0.01		22, 24	30

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
Gasoline Hydrotreater Unit							
8001B	Regeneration Heater (1,000 hours per year)	CO	1.92	0.96		7, 28	30
		NO _x	0.66	0.33		7, 28	30
		PM ₁₀	0.17	0.09		7, 28	30
		SO ₂	0.02	0.01		7, 28	30
		VOC	0.13	0.07		7, 28	30
8002B	Second Stage Feed Heater	CO	0.70	3.09		28	30
		NO _x	0.24	1.05		28	30
		PM ₁₀	0.06	0.28		28	30
		SO ₂	0.01	0.01		28	30
		VOC	0.05	0.20		28	30
8003B	GHU Flare	CO	9.07	26.71	8, 34	8, 34	30, 34
		CO MSS	6.58	0.37	8, 36, 37	8, 35, 36, 37	30
		NO _x	2.28	6.71	8, 34	8, 34	30, 34
		NO _x MSS	1.28	0.07	8, 36, 37	8, 35, 36, 37	30
		SO ₂	0.01	0.02	8, 34	8, 34	30, 34
		VOC	3.43	10.09	8, 33, 34	8, 33, 34	30, 33, 34
		VOC MSS	18.78	1.07	8, 36, 37, 42	8, 35, 36, 37, 42	30
8801U	Cooling Tower	VOC	1.32	5.79	21	21	30
8801F	Process Fugitives (5)	VOC	1.00	4.38	17, 19, 20, 33	17,18, 19, 20, 33	17, 30, 33
Propylene Purification Unit							
PPUFUG-1	Unloading Station Fugitives (5)	VOC	0.23	1.01	17, 20, 31	17,18, 20, 31	17, 30, 31
PPUFUG-2	Process Fugitives (5)	VOC	9.24	40.46	17, 20, 31	17,18, 20, 31	17, 30, 31

Permit Number: 19168 and PSDTX1226 Issuance Date: 7/3/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
PPUFUG-3	Storage Spheres Fugitives (5)	VOC	2.12	9.26	17, 20, 31	17,18, 20, 31	17, 30, 31
PPULUBE	Lube Oil Reservoir	VOC	0.01	0.01		24	30
West Metering Station							
WMS-1	UCC West Metering Station Analyzer Purge	VOC	0.25	1.10			
Natural Gas Liquids Fractionation Unit							
FRACII-FUG	Process Fugitives (5)	VOC	1.32	5.80	17	17, 18	17, 30
FRACII-CT	Cooling Tower	VOC	1.50	6.58			
		PM	0.75	3.29			
		PM ₁₀	0.42	1.83			
		PM _{2.5}	0.01	0.01			
FRACII-VO	Vessel Opening	VOC MSS	3.02	0.10	36, 37	35, 36, 37	
1067	Olefins 2 Flare FRACII Sources Normal Operation	CO	0.66	2.88	8, 34	8, 34	30, 34
		NO _x	0.09	0.40	8, 34	8, 34	30, 34
		SO ₂	0.01	0.01	8, 34	8, 34	30, 34
		VOC	0.05	0.23	8, 33, 34	8, 33, 34	30, 33, 34
1067	Olefins 2 Flare FRACII Sources Startup/Shutdown	CO MSS	4.79	0.36	36, 37, 42	35, 36, 37, 42	30
		NO _x MSS	0.66	0.05	36, 37, 42	35, 36, 37, 42	30
		SO ₂ MSS	0.01	0.01	36, 37, 42	35, 36, 37, 42	30
		VOC MSS	8.19	0.61	36, 37, 42	35, 36, 37, 42	30
1067	Olefins 2 Flare FRACII Sources Flare Purging MSS	CO MSS	4.29	0.70	36, 37, 42	35, 36, 37, 42	30
		NO _x MSS	0.59	0.10	36, 37, 42	35, 36, 37, 42	30
		SO ₂ MSS	0.01	0.01	36, 37, 42	35, 36, 37, 42	30
		VOC MSS	8.67	1.56	36, 37, 42	35, 36, 37, 42	30

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3)
 - CO - carbon monoxide
 - NO_x - total oxides of nitrogen
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
 - PM_{2.5} - total particulate matter equal to or less than 2.5 microns in diameter
 - SO₂ - sulfur dioxide
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - H₂SO₄ - sulfuric acid (98 percent)
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) No more than 6 pyrolysis furnaces shall be decoked at any one time: two furnaces to decoke drum EPN 1009, two furnaces to decoke drum EPN 1063, and two furnaces to either decoke drum EPN 1009 or to decoke drum EPN 1063.
- (7) Only one flare may be used to control startup emissions at one time.
- (8) Only two pyrolysis furnaces may emit at these maximum lb/hr CO and NO_x allowable emission rates simultaneously.
- (9) TPY allowable emission rates for CO, NO_x and VOC MSS reflect combined cap for flares 1018 and 1067.

Permit Number: 19198 and PSDTX1234 Issuance Date: 4/2/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EG-CT	Cooling Tower	VOC	1.99	8.69	18	18	25
EP221	CO ₂ Regenerator Vent and Recovery System (6)	VOC	115.42	10.39	20, 22, 23	20, 22, 23	20, 23, 25
EP552	Caustic Tank GT552	NaOH	0.01	0.01	8	8, 9	25
RTO221	RTO Vent (Normal Operation)	NO _x	0.51	2.25	11, 15, 20	15, 20	15, 20, 25
		CO	0.43	1.89	11, 15, 20	15, 20	15, 20, 25
		VOC	1.50	6.65	11, 15, 20	11, 15, 20	15, 20, 25
		PM ₁₀	0.04	0.17	11, 15	11, 15	15, 25
		PM _{2.5}	0.04	0.17	11, 15	11, 15	15, 25
		SO ₂	0.01	0.01	11, 15	11, 15	15, 25
EP615	GT615 Tank	VOC	2.55	0.34	8	8	25
EP630A	GT630A Tank	VOC	0.22	0.11	8, 17	8, 17	17, 25
EP630B	GT630B Tank	VOC	0.22	0.11	8, 17	8, 17	17, 25
EP630C	GT630C Tank	VOC	0.22	0.11	8, 17	8, 17	17, 25
EP725A	GT725A Tank	VOC	0.01	0.01	8, 17	8, 17	17, 25
EP725B	GT725B Tank	VOC	0.01	0.01	8, 17	8, 17	17, 25
EP730A	GT730A Tank	VOC	0.01	0.01	8, 17	8, 17	17, 25
EP730B	GT730B Tank	VOC	0.01	0.01	8, 17	8, 17	17, 25
EP740	GT740 Tank	VOC	0.01	0.01	8, 17	8, 17	17, 25
EP750	GT750 Tank	VOC	0.01	0.01	8, 17	8, 10, 17	17, 25

Permit Number: 19198 and PSDTX1234 Issuance Date: 4/2/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EP806	GT806 Tank	VOC	0.41	0.38	8	8	25
EP807	GT807 Tank	VOC	0.41	0.38	8	8	25
EP808	GT808 Tank	VOC	0.02	0.02	8	8	25
EP809	GT809 Tank	VOC	0.01	0.01	8	8	25
EP910	Common Incinerator Stack	CO	1.56	6.83	12, 13, 15, 20, 21	12, 15, 20, 21	15, 20, 21, 25
		CO MSS	4.00	-	12, 13, 15, 20	12, 15, 20	15, 20, 25
		NO _x	1.44	6.31	12, 13, 15, 20	12, 15, 20	15, 20, 25
		PM ₁₀	0.25	1.08	12, 15, 16	12, 15, 16	15, 16, 25
		SO ₂	0.03	0.11	12, 13, 15, 16	12, 15, 16	15, 16, 25
		VOC	0.06	0.25	12, 13, 15, 17, 20	12, 13, 15, 17, 20	15, 17, 20, 25
PF-LO1	Crude Glycol and PEG Loading Losses	VOC	1.25	0.02	28	28	25
EGFUG1	Process Piping Fugitives (5)	EtO	0.07	0.32	2, 3, 4, 5, 6, 7, 17	2, 3, 4, 5, 6, 7, 17	2, 4, 17, 25
		VOC (7)	1.86	8.11	2, 3, 5, 6, 7, 17	2, 3, 5, 6, 7, 17	2, 17, 25
EGMAINTAB	Equipment MSS Emissions (8)(7)	VOC	223.00	1.00	28, 29	27, 28, 29, 31	25
		PM	0.29	0.30		27, 31	25
		PM ₁₀	0.12	0.30		27, 31	25
		PM _{2.5}	0.09	0.20		27, 31	25
EGMAINTC	Equipment MSS Emissions (9)	VOC	2430.00	21.10	28, 29	27, 28, 29	25

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
 - PM_{2.5} - total particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
 - EtO - ethylene oxide
 - NaOH - sodium hydroxide
- (3) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (4) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (5) Emission rates are associated with MSS activities.
- (6) Ethylene oxide emissions are not included in the VOC emissions total.
- (7) Emission rates are associated with activities listed in Attachments A and B.
- (8) Emission rates are associated with activities listed in Attachment C.

Permit Number: 19199 and PSDTX1238 Issuance Date: 05/28/2013

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EDCFUG	Process Fugitives (5)	Cl ₂	0.01	0.02	3, 17, 20	3, 17, 20	3, 17
		HCl	0.01	0.01	3, 17	3, 17	3, 17
		VOC	1.47	6.44	17, 18, 19	17, 18, 19	17
6002A/B/C	Three Incinerator/Scrubbers (6)	Cl ₂	0.86	3.78	3, 11, 13, 22, 36	3, 11, 22, 25, 36	3, 22
		CO	2.18	9.54	13, 22, 36	22, 25, 36	22
		CO (7)	9.00	-	13, 22, 36	22, 25, 36	22
		HCl	0.44	1.92	3, 10, 11, 13, 22, 36	3, 10, 11, 22, 25, 36	3, 22
		NO _x	5.69	24.91	13, 22, 36	22, 25, 36	22
		VOC	1.18	5.27	7, 8, 13, 22, 36	7, 8, 22, 25, 36	22
EDC-CT	Cooling Tower	VOC	0.88	3.86	16	16	
2C-C1	Cooling Tower	VOC	0.88	3.86	16	16	
2C-C2	Cooling Tower	VOC	0.88	3.86	16	16	
Maintenance, Startup, and Shutdown (MSS)							
EDC-MAINT	Emissions to Atmosphere	VOC	647.96	12.60	29, 30, 31, 32, 33, 35	28, 29, 30, 31, 32, 33, 35	
		HCl	19.28	2.30	30	28, 29, 30	
		Cl ₂	0.37	0.01	30	28, 29, 30	

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - Cl₂ - chlorine
 - CO - carbon monoxide
 - HCl - hydrogen chloride
 - NO_x - total oxides of nitrogen
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) This entry represents three separate emissions points. Emissions shown are the maximum allowable rates for the three incinerator/scrubber trains combined.
- (7) Hourly CO emission rate during Startup.

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
8DF-20A	Diesel Storage Tank	VOC	0.10	0.01	25	13	
8DF-20B	Diesel Storage Tank	VOC	0.10	0.01	25	13	
8FP-D20A	Diesel Fire Water Pump	NOx	14.88	0.38		7	
		CO	3.22	0.08		7	
		VOC	1.19	0.04		7	
		PM	1.06	0.04		7	
		SO2	1.68	0.06	7	7	
8FP-D20B	Diesel Fire Water Pump	NOx	14.88	0.38		7	
		CO	3.22	0.08		7	
		VOC	1.19	0.04		7	
		PM	1.06	0.04		7	
		SO2	1.68	0.06	7	7	
8FT-Do1	Naphtha Tank	VOC	11.07	23.21	3, 13, 25	3, 13	3
8FT-Do3	Naphtha Tank	VOC	6.79	14.11	3, 13, 25	3, 13	3
8FT-Do9A	Monoethylene Glycol (MEG) Tank	VOC	0.35	0.27	3, 13, 25	3, 13	3
8FT-Do9B	MEG Tank	VOC	0.35	0.27	3, 13, 25	3, 13	3
8FT-D14	Diethylene Glycol Storage Tank	VOC	0.01	0.02	13, 25	13	

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1018	Olefins 1 Elevated Flare – Inland Traffic Contribution from Railcar Loading arm	VOC	0.11	0.06	2	2	2
		NO _x	0.03	0.13			
		CO	0.02	0.11			
		SO ₂	0.01	0.01	17	17	
8F-Do1	Chandelier Flare	NO _x	0.15	0.01	5, 46	5, 46	46
		NO _x MSS	10.20	0.50	37, 39, 46,	37, 38, 39, 46, 48	46
		CO	0.30	0.01	5, 46	5, 46	46
		CO MSS	20.40	1.02	39, 46	37, 38, 39, 46, 48	46
		SO ₂	0.01	0.01	5, 17, 46	5, 17, 46	46
		SO ₂ MSS	0.01	0.01	39, 46	37, 38, 39, 46, 48	46
		VOC MSS	62.9	3.09	39, 42, 43, 46	37, 38, 39, 42, 43, 46, 48	46
8F-Do1	Dock Incinerator/ Scrubber/ Ship and Barge Loading	EDC	0.04	0.02	23, 26, 27, 28, 31, 34	23, 26, 27, 28, 31, 35	26, 31
		NO _x	3.30	14.45	26, 28, 31	26, 28, 31, 35	26, 31
		CO	0.14	0.61	26, 28, 31	26, 28, 31, 35	26, 31
		PM	1.10	4.80	28, 31	28, 31, 35	31
		SO ₂	0.03	0.15	17, 26, 28, 31	17, 26, 28, 31, 35	26, 31
		HCl	0.42	1.84	26, 28, 31	26, 28, 31, 35	26, 31
		Cl ₂	0.41	1.80	26, 28, 31	26, 28, 31, 35	26, 31
		VOC	0.40	1.75	26, 28, 31	26, 28, 31, 35	26, 31

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
8F-Do3	Dock Flare/Barge Loading Error! Reference source not found. (8)	VOC	22.42	15.97	2, 5, 26	2, 5, 26, 35	2, 26
		NOx	2.47	1.69	5, 26	5, 26, 35	26
		CO	21.12	14.15	5, 26	5, 26, 35	26
		SO ₂	0.01	0.01	5, 17, 26	5, 17, 26, 35	26
8F-Do4	FT-D18 Flare	VOC	0.02	0.03	2, 5, 46	2, 5, 46	2, 46
		VOC MSS	15.00	0.06	42, 43, 46	37, 38, 42, 43, 46, 48	46
		NOx	1.10	4.82	5, 46	5, 46	46
		NO _x MSS	2.00	0.16	46	37, 38, 46, 48	46
		CO	1.50	6.57	5, 46	5, 46	46
		CO MSS	3.90	0.31	46	37, 38, 46, 48	46
		SO ₂	0.01	0.02	5, 17, 46	5, 17, 46	46
		SO ₂ MSS	0.01	0.31	46	37, 38, 46, 48	46

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
8F-Do5	BTX Tank Flare	CO	1.77	7.75	5, 46	5, 46	46
		CO MSS	3.90	0.39	46	37, 38, 46, 48	46
		NO _x	0.88	3.85	5, 46	5, 46	46
		NO _x MSS	1.08	0.28	46	37, 38, 46, 48	46
		SO ₂	0.01	0.02	5, 17, 46	5, 17, 46	46
		SO ₂ MSS	0.01	0.01	46	37, 38, 46, 48	46
		VOC	0.02	0.02	2, 5, 46	2, 5, 46	2, 46
		VOC MSS	15.00	0.04	46	37, 38, 46, 48	46
8F-Do6	Tank Farm Flare (7)	VOC	0.16	0.15	2, 5, 46	2, 5, 46	2, 46
		VOC MSS	1.10	0.02	46	46, 48	46
		NO _x	2.01	8.73	5, 46	5, 46	46
		NO _x MSS	0.10	0.003	46	46, 48	46
		CO	4.01	17.43	5, 46	5, 46	46
		CO MSS	0.30	0.01	46	46, 48	46
		SO ₂	0.01	0.02	5, 17, 46	5, 17, 46	46
		SO ₂ MSS	0.01	0.01	46	46	46

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
8F-Do7	Dock Vapor Combustor/ Barge and Ship Loading (8)	VOC	11.21	8.04	12, 32, 33	12, 32, 35	32
		NO _x	2.02	3.06	12, 33	12, 35	
		CO	17.24	25.88	12, 33	12, 35	
		PM/PM ₁₀ /PM _{2.5}	0.23	0.35	5, 6, 12, 33	5, 6, 12, 35	
		SO ₂	0.01	0.01	12, 17, 33	12, 17, 35	
8F-Do3/8F-Do7	Flare/Vapor Combustor Cap Error! Reference source not found. (8)	VOC		15.97	5	5, 35	
		NO _x		3.06	5	5, 35	
		CO		25.88	5	5, 35	
		PM/PM ₁₀ /PM _{2.5}		0.35	5	5, 35	
		SO ₂		0.01	17, 5	17, 5, 35	
8FT-901S1	Caustic Tank	NaOH	0.01	0.01	25		
8FT-901S2	Caustic Tank	NaOH	0.01	0.01	25		
8FT-902	Caustic Tank	NaOH	0.01	0.01	25		
8FT-911S1	Caustic Tank	NaOH	0.01	0.01	25		
8FT-911S2	Caustic Tank	NaOH	0.01	0.01	25		
8FT-911S3	Caustic Tank	NaOH	0.01	0.01	25		
8FT-911S4	Caustic Tank	NaOH	0.01	0.01	25		
8FT-Do7A	Caustic Tank	NaOH	0.01	0.01	25		
8FT-Do7B	Caustic Tank	NaOH	0.01	0.01	25		

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
8F-EG	MEG and DEG Loading (6)	VOC	0.92	0.56	10, 15	35	
PFO-Lo1	Uncollected Pyrolysis Fuel Oil Loading Losses	VOC	21.84	0.27	10, 15	35	
PF-Lo2	Inland Traffic Uncollected EG Loading Losses	VOC	0.31	0.13		35	
8FDFUGDOCK	Dock Piping Process Fugitives (5)	VOC	0.43	1.82	2, 3, 4, 29, 30	2, 3, 4, 29, 30	2, 3, 4, 29
8FDFUGINLD	Inland Traffic Process Fugitives (5)	VOC	0.24	1.05	2, 4, 29, 30	2, 4, 29, 30	2, 4, 29
8FD-FUGTK	Tank Farm Process Fugitives (5)	VOC	0.90	3.95	2, 3, 4, 29, 30	2, 3, 4, 29, 30	2, 3, 4, 29
8GT-809B	TEG Storage Tank	VOC	0.01	0.01	13, 25	13	
8GT-811	DEG Storage Tank	VOC	0.01	0.01	13, 25	13	
TRFDSLUG	Traffic Facility Fire Water System Fugitives (5)	VOC	0.03	0.11	29, 30	29, 30	29
PF-BARGFUG	Barge Process Loading Fugitives (5)	VOC	56.06	0.80	3, 10, 21, 29, 30	3, 29, 30, 35	3, 29
PF-SHIPFUG	Ship Process Loading Fugitives (5)	VOC	55.04	14.04	4, 10, 21, 29, 30	4, 29, 30, 35	4, 29

Permit Number: 19871 and PSDTX1236 Issuance Date: 12/11/2012 (MAERT), 5/28/2013 (Special Conditions)							
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
IBLFUG	Railcar Piping Process Fugitives	VOC	0.83	3.64	2, 4, 21, 29, 30	2, 4, 29, 30	2, 4, 29
Maintenance, Startup, and Shutdown (MSS)							
ITRAFF-MNT	Inland Traffic MSS to Atmosphere	VOC	760.31	7.61	39, 40, 41, 45	38, 39, 40, 41, 45, 48	
		CO	2.01	0.09	39, 45	38, 39, 45, 48	
		NO _x	1.01	0.04	39	38, 39, 48	
		SO ₂	0.01	0.01	39	38, 39, 48	
MTRAFF-MNT	Marine Traffic MSS to Atmosphere	VOC	469.00	5.19	39, 40, 41, 42, 43, 45	38, 39, 40, 41, 42, 43, 45, 48	
		CO	3.00	0.14	39, 45	38, 39, 45, 48	
		NO _x	1.50	0.09	39	38, 39, 48	
		SO ₂	0.01	0.01	39	38, 39, 48	
		PM/PM ₁₀ /PM _{2.5}	0.07	0.01	39	38, 39, 48	

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1, other than EDC.
 - NO_x - total oxides of nitrogen
 - CO - carbon monoxide
 - PM - particulate matter, suspended in the atmosphere, including PM₁₀
 - PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 - SO₂ - sulfur dioxide
 - EDC - ethylene dichloride
 - HCl - hydrogen chloride
 - Cl₂ - chlorine
 - NaOH - sodium hydroxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Includes losses from MEG ship and barge loading and DEG barge loading.
- (7) These emissions are to commence upon installation and completion of Flare (EPN 8f-Do6).
- (8) The sum of the annual contributions for EPNs 8F-Do3 and 8F-Do7 cannot exceed the cap established by EPN 8F-Do3/8F-Do7, Flare/Vapor Combustor Cap.

Permit Number: 83763 and PSDTX1230 Issuance Date: 11/30/2012

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)			
SITE-MNT PAINT	Site-Wide Maintenance - Bulk Painting	VOC	21.12	7.3		2, 5	
		PM	6.09	2.1		2, 5	
		PM10	1.87	0.03		2, 5	
		PM2.5	0.19	0.003		2, 5	
		IOC-U	0.10	0.008		2, 5	
SITE-MNT SHOPS	Site-Wide Maintenance - Spot Usage	VOC	34.35	9.5		2	
		PM	0.06	0.004		2	
		PM10	0.06	0.004		2	
		PM2.5	0.002	0.0001		2	
		IOC-U	0.10	0.0012		2	
		Exempt Solvents	3.5	1.7		2	
SITE-MNT BLAST	Site-Wide Outdoor Abrasive Blasting	PM	3.43	0.20		2, 6	
		PM10	0.41	0.02		2, 6	
		PM2.5	0.06	0.01		2, 6	
SITE-ILE	Site-Wide Inherently Low Emitting Maintenance Activities	VOC	0.21	0.10		2	
EP-4	EDC Unit Degreaser	VOC	0.14	0.60		2, 8	
EP-6	Ethylene Glycol Unit Degreaser	VOC	0.14	0.60		2, 8	
EP-7	Olefins I Solvent Degreaser	VOC	0.14	0.60		2, 8	
EP-9	Olefins II Solvent Degreaser	VOC	0.14	0.60		2, 8	
EP-10	PO II Solvent Degreaser	VOC	0.14	0.60		2, 8	
LL-EP-8	LLDPE/PO I Solvent Degreaser	VOC	0.14	0.60		2, 8	

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - IOC-U - inorganic compounds (unspeciated)
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
 - PM_{2.5} - total particulate matter equal to or less than 2.5 microns in diameter
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.



**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT**



A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
Olefin Production Units
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41' 00" Longitude 096° 32' 30"

Permit: 19168 and PSDTX1226

Amendment Date : July 3, 2013

Renewal Date: February 12, 2017


For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Emissions Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit.
2. The nitrogen oxides (NO_x) emissions from the Pyrolysis Furnaces shall not exceed the following rates during normal operation: **(PSD) (11/12)**
 - A. For Emission Point Nos. (EPNs) 1001 through 1008 and 1009B,

Under normal operating conditions:
Pounds (lbs) of NO_x per MMBtu of heat input averaged daily = 0.12,
on a 12-month rolling average basis **(07/13)**

Under startup/shutdown and/or maintenance decoking conditions*:
EPNs 1001-1002: 31.03 lb NO_x/hr, hourly average
EPNs 1003-1008, 1009B: 30.30 lb NO_x/hr, hourly average
 - B. For EPNs 1010B, N1011, and N1012,

Under normal operating conditions:
0.075 lb NO_x/MMBtu, hourly average, and
0.06 lb NO_x/MMBtu, rolling 12-month average

Under startup/shutdown and/or maintenance decoking conditions*:
18.75 lb NO_x/hr, hourly average
 - C. For EPNs 1054 - 1062 and 1091,

Under normal operating conditions:
The total fired heat duty of EPNs 1054 through 1062 and 1091 is limited to 2081 MMBtu/hr on an annual average basis in the Olefins II Unit. The instrumentation that monitors furnace fired duty, fuel consumption and other parameters for each of the ten furnaces shall provide a real time demonstration of compliance.

Under startup/shutdown and/or maintenance decoking conditions*:
EPNs 1054-1056: 20.02 lb NO_x/hr, hourly average
EPNs 1057-1062, 1091: 19.29 lb NO_x/hr, hourly average

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 2

* Two furnaces at a time may emit an additional 3 lb/hr NO_x during these periods.

3. The NO_x emissions from the Regeneration Heater and the Second Stage Feed Heater (EPNs 8001B and 8002B) shall not exceed 0.06 lb NO_x/MMBtu fired during normal operation. **(PSD)**
 4. The carbon monoxide (CO) emissions from the Pyrolysis Furnaces shall not exceed these values during normal operation: **(PSD) (11/12)**
 - A. For EPNs 1001 through 1008 and 1009B, 0.035 lb/MMBtu of heat input averaged daily, on a 12-month rolling average basis **(07/13)**; and
Under startup/shutdown and/or maintenance decoking conditions*:
EPNs 1001-1002: 12.23 lb/hr CO, hourly average
EPNs 1003-1008, 1009B: 8.20 lb/hr CO, hourly average
 - B. For EPNs 1010B, N1011, and N1012,
Under normal operating conditions:
0.025 lb CO/MMBtu of heat input averaged daily, and
Under startup/shutdown and/or maintenance decoking conditions*:
8.75 lb CO/hr, hourly average
 - C. For EPNs 1054-1056
Under startup/shutdown and/or maintenance decoking conditions*:
12.57 lb CO/hr, hourly average
 - D. For EPNs 1057-1062, 1091
Under startup/shutdown and/or maintenance decoking conditions*:
8.54 lb CO/hr, hourly average
- * Two furnaces at a time may emit an additional 35 lb/hr CO during these periods.
5. There shall be no visible emissions for periods exceeding five minutes from the Pyrolysis Furnace Stacks (EPNs 1001 through 1008, 1009B, and 1010B and EPNs 1054 through 1062, 1091, N1011, and N1012) during normal operation. Any

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 3

violation of this condition shall also be considered a violation of the allowable limit for particulate matter (PM) during normal operation. **(PSD)**

6. Opacity of emissions from the Decoking Drums (EPN 1009 and 1063) must not exceed 10 percent averaged over a six-minute period during normal operation. Startup, shutdown and maintenance emissions are not authorized by this special condition. **(PSD)**
7. The Catalyst Regeneration Heater (EPN 8001B) is limited to 1,000 hours per year of operation on a rolling 12-month average. Records of the catalyst regeneration operation, including hours vented to the elevated flare shall be made and maintained for a period of two years. This data shall be readily provided to representatives of the TCEQ upon request. **(PSD) (02/08)**

Operational Limits

8. The flare systems shall operate in accordance with the requirements stated in the paragraphs shown in the table below: **(PSD) (11/12)**

Flare EPN	Flare Name	Required to comply with paragraphs during Normal Operations	Required to comply with paragraphs during Maintenance Operations
1018	Olefins 1 Elevated Flare	A through C	A through F (11/12)
1051	Olefins 1 Tank Flare	A through C	A through E (11/12)
1067	Olefins 2 Elevated Flare	A through C	A through F (11/12)
1087	Olefins 2 Tank Flare	A through C	A through E (11/12)
8003B	GHU Flare	A through E (07/13)	A through E (11/12)

- A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 4

Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

- B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded.
- C. The flares shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of steam assist or air assist.
- D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be $\pm 5.0\%$

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

For the Olefins 1 & 2 elevated flares, 1018 and 1067, permit holder shall have 36 months from the date of permit amendment issuance (date indicated in the table above) to install continuous flow monitors satisfying this condition (8D).

For flares 1051, 1087, and 8003B, permit holder shall have 18 months from the date of permit amendment issuance (date indicated in the table above) to install continuous flow monitors satisfying this condition (8D).

- E. For Olefins 1 & 2 elevated flares, 1018 and 1067, permit holder shall have 36 months from the date of permit amendment issuance (date indicated in the table above) to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 5

For flares 1051, 1087 and 8003B, permit holder shall have 18 months from the date of permit issuance (date indicated in the table above) to install a calorimeter to demonstrate compliance with 40 CFR § 60.18 specifications of minimum heating value.

- F. Only one Olefins Unit's shutdown emissions may be routed to either Olefins 1 Elevated Flare (EPN 1018) or Olefins 2 Elevated Flare (EPN 1067) at any one time.
9. Not more than 6 pyrolysis furnaces shall be decoked at any one time: two furnaces to decoke drum EPN 1009, two furnaces to decoke drum EPN 1063, and two furnaces to either decoke drum EPN 1009 or to decoke drum EPN 1063. The operator shall record decoking of each pyrolysis furnace, recording the furnaces affected, the time decoking is carried out, and the related decoke drum. Records shall be updated monthly to insure compliance with this special condition and these records be made readily available at the request of EPA or TCEQ personnel. **(PSD) (07/13)**
10. Ethylene production is limited to 4.0 billion pounds per year calculated on a rolling 12-month basis from the ethylene furnaces authorized in this permit. Records shall be updated monthly to insure compliance with this special condition and these records be made readily available at the request of EPA and TCEQ personnel. **(PSD) (02/08)**
11. Volatile organic compounds (VOC) from the catalyst regeneration in the gasoline hydrotreater unit shall be vented to the Elevated Flare (EPN 1018) or the fireboxes of any of the Pyrolysis Furnaces. The VOC emissions from the acetylene converter unit (ACU) in the Olefins One Unit shall only be vented to the ethylene furnace fireboxes of EPNs 1001 and/or 1002 for abatement up to three ACU regenerations in any rolling 12-month period. The VOC emissions from the ACU in the Olefins II Unit shall only be vented to the ethylene furnace fireboxes of EPNs 1054, 1055, and/or 1056 for abatement up to three ACU regenerations in any rolling 12-month period. The MAPD converter regeneration process that vents to EPNs 1012 and 1066 is limited to four regenerations every rolling 12 months of operation. The MAPD converter regeneration process that vents to Pyrolysis Furnaces EPNs 1001 and 1002 is limited to four regenerations every rolling 12-months of operation. It is not permissible to vent each VOC containing stream to the atmosphere. **(PSD) (02/08)**
12. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum available emission rates table

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 6

(MAERT). Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

13. Testing of the Diesel Emergency Generators (EPNs 7900LJD and N7900LJD) for maintenance purposes shall not exceed 52 hours per year for each generator. **(07/13)**
14. Monthly records of the Diesel Emergency Generator use (EPNs 7900LJD and N7900LJD) maintained at the plant site, shall include (but are not limited to) hours of operation. These records shall be made readily available to the TCEQ upon request.
15. The Olefins I caustic sump, the Olefins II caustic sump, the Olefins II Spent Caustic sump and the Olefins II polymer inhibitor tank shall vent through a carbon adsorption system (EPNs 2412FCC, N2412FCC, N5704LF3CC, and N7460LFCC) consisting of at least two activated carbon canisters connected in series.
16. For EPNs 2412FCC, N2412FCC, N5704LF3CC and N7460LFCC, the carbon canisters shall be changed out at least once every 21 days. During change out, if both canisters are not replaced, the initial carbon canister shall be replaced by the final carbon canister and a new carbon canister will be put in the spot of the final carbon canister. Records shall be kept showing the date of each change out.
17. Piping, Valves, Connectors, Pumps, Agitators, and Compressors - 28VHP **(11/12)**

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68EF or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) Piping and instrumentation diagram (PID);

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 7

- (2) A written or electronic database or electronic file;
 - (3) Color coding;
 - (4) A form of weatherproof identification; or
 - (5) Designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 8

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 9

VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 10

scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
- M. With respect to Special Condition 17, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 11

of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.

18. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 17, damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(02/11)**
19. Specific Olefins I Unit Flanges, Specific Olefins II Unit Flanges and Connectors in Gasoline Hydrotreater Unit Monitored with an Instrument Once a Year - 28 CNTA. **(PSD)**

In addition to the weekly physical inspection required by Item E of Special Condition No. 17, all designated flanges and connectors in gas/vapor and light liquid service shall be monitored annually with an approved gas analyzer in accordance with Items F through J of Special Condition No. 17. Alternative monitoring frequency schedules "skip options" of 40 CFR Part 63, Subpart H, National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, may be used in lieu of the monitoring frequency required by this permit condition. Compliance with this condition does not assure compliance with requirements of applicable state or federal regulation and does not constitute approval of alternative standards for these regulations.

20. Propylene Purification Unit 1 Flanges and Specific Gas Hydrotreater Unit Flanges Monitored with an Instrument Once a Quarter - 28CNTQ **(PSD)**
 - A. In addition to the weekly physical inspection required by Item E of Special Condition No.17, all accessible flanges in gas/vapor and light liquid service shall be monitored quarterly with an approved gas analyzer in accordance with Items F through J of Special Condition No. 17.
 - B. In lieu of the monitoring frequency specified in paragraph A, flanges may be monitored on a semiannual basis if the percent of flanges leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 12

Flanges may be monitored on an annual basis if the percent of flanges leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of flanges leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

- C. The percent of flanges leaking used in paragraph B shall be determined using the following formula:

$$(Cl + Cs) \times 100 / Ct = Cp$$

Where:

Cl = the number of flanges found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Cs = the number of flanges for which repair has been delayed and are listed on the facility shutdown log.

Ct = the total number of flanges in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor flanges.

Cp = the percentage of leaking flanges for the monitoring period.

21. Cooling tower monitoring requirements

VOC Monitoring - The cooling tower water shall be monitored monthly for VOC leakage from heat exchangers in accordance with the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or another air stripping method approved by the TCEQ Executive Director. Cooling towers designated as EPNs 1010, 1064, 8801U and FRACII-CT shall be monitored. A VOC leak is defined as 50 parts per billion (ppb) and this VOC leak rate from these EPNs will be used to demonstrate compliance with this special condition. Other cooling towers authorized in this permit are not subject to this VOC leak rate of 50 ppb. Results of the monitoring and maintenance efforts shall be recorded, and such records shall be maintained for a period of two years. The records shall be made readily available to representatives of the EPA or TCEQ personnel upon request. **(PSD) (11/12)**

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 13

PM Monitoring - Cooling towers designated as EPN FRACII-CT shall be monitored. Cooling water shall be sampled once a week for total dissolved solids (TDS) and twice a week for conductivity. Dissolved solids in the cooling water drift are considered to be emitted as particulate matter. The data shall be obtained from samples of the cooling water returning to the cooling tower and represent the water being cooled in the tower. Water samples should be capped upon collection, and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, and SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. The analysis method for Conductivity shall be ASTM D1125-95A and SM2510 B.

The permit holder may reduce the frequency of sampling for TDS by establishing a correlation between TDS and conductivity for the cooling tower as follows.

- A. For a minimum period of four weeks the cooling water shall be sampled at least once a week for TDS and conductivity. The data from the side-by-side measurements of TDS and conductivity shall be graphed and a least squares linear fit determined. The standard deviation of the calculated slope shall be determined and the slope shall be increased by two standard deviations for data quality expectation. A report including the sampling results, a data assessment, and correlation of TDS to conductivity will be maintained on site.
- B. Following the completion of the report, the cooling water shall be sampled at least daily for conductivity and the result converted to TDS from the established correlation.
- C. The correlation will be rechecked annually with a single cooling water sample analysis for TDS and conductivity. The measured TDS value shall be compared to that estimated using the measured conductivity and the established correlation. If the TDS value from the correlation does not exceed the TDS value obtained from the test method, a new correlation effort shall be conducted in accordance with paragraph A of this condition.
- D. The cooling tower particulate matter emissions shall be determined using the cooling tower water circulation rate, cooling tower design drift, and the measured or estimated TDS. **(07/13)**

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 14

22. Storage and Loading of VOC - 31M (PSD)

- A. Storage tanks are subject to the following requirements. The control requirements specified in paragraphs B-E of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.
- B. An internal floating deck roof or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.
- C. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weather shield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.
- D. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in 40 CFR § 60.113b Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.
- E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
- F. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- G. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 15

calendar month and the past consecutive 12-month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions for tanks shall be calculated using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

23. Settlement Agreement Condition - The holder of this permit shall maintain a nitrogen blanket on each fixed-roof VOC storage tank and internal floating roof VOC storage tank unless the tank emissions are routed to a control device or containment system.
24. Service of the listed tanks is limited to storage of the chemicals appearing below. Storage and loading of other chemicals are prohibited unless prior approval is obtained from the Executive Director of the TCEQ. Claiming Permits by Rule qualifies as a valid method of authorization from the Executive Director of the TCEQ. **(11/07)**

Tank EPN	Service
7900LJDF	Diesel fuel
C29600, N920766	Polymerization inhibitor
C29601, N920425	Polymerization inhibitor
N79134	Polymerization inhibitor
N83070, N83071	Corrosion inhibitor
N1705L2F, N1705L5F	Corrosion inhibitor
PPULUBE	Lubricating oil
PGCLUBE, PRC/ERCLUBE, 3601J1/J2LUBE, NPGCLUBE, NPRC/ERCLUBE, N3602J1/J2LUBE, PGCSEAL, PRC/ERCSEAL, NPGCSEAL	Lubricating oil

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 16

Initial Determination of Compliance

25. The holder of this permit has performed initial stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Pyrolysis Furnaces. The testing on the Pyrolysis Furnaces (EPNs 1001 through 1008 and 1009B, EPNs 1054 through 1062, and EPNs 1091, 1010B, N1011, and N1012) and the Decoke Drums (EPNs 1009 and 1063) has been completed. The holder of this permit is responsible for making a copy of each sampling report available upon request to TCEQ or EPA personnel. **(PSD) (07/13)**

Continuous Demonstration of Compliance

26. The holder of this permit shall install, calibrate, maintain and operate a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of NO_x, CO, and oxygen from the Pyrolysis Furnace Stacks (EPNs 1001 through 1008, 1009B, 1054 through 1062, 1091, 1010B, N1011 and N1012). **(PSD) (03/07)**
- A. Each CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60), Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.
- Field performance testing of each CEMS shall be initiated within 60 days after initial start-up. The date of commencement of monitor certification testing shall be provided to the TCEQ Regional Office at least 30 days prior to the start of the monitor testing. The certification test report shall be forwarded to the TCEQ and EPA within 30 days after completion of the monitor certification tests.
- B. Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; Section 2 applies to all other sources:
- (1) The permit holder shall assure that each CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 17

60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and each CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken.

Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.

- (2) Each system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of ± 15 percent accuracy indicate that each CEMS is out of control.

- C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rate in lbs per hour and lbs/MMBtu (daily average) at least once every week as follows:

The measured hourly average concentration from each CEMS shall be multiplied by the flow rate measured during the latest stack test performed in accordance with Special Condition No. 25, to determine the hourly emission rate.

- D. All monitoring data and quality-assurance data shall be maintained by the source. The data from each CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 18

- E. Quarterly reports of all excessive emissions and each CEMS downtime shall be submitted to the appropriate TCEQ Regional Director. These reports shall include the information described in 40 CFR § 60.7 and the hours of operation of the source during the reporting period.
 - F. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
 - G. Quality-assured (or valid) data must be generated when the Olefins I and II facilities are operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operations (producing inaccurate data), repair, maintenance or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Olefins I and II facilities operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.
27. Hydrogen content of the fuel gas to the Pyrolysis Furnaces (EPNs 1001 through 1008 and 1009B) shall not exceed a daily average of 72 mole percent and shall be monitored at least four times per hour using a gas chromatograph (GC) equipped with a thermal conductivity detector and a molecular sieve column or approved equivalent. The monitoring data shall be reduced to daily average concentrations at least once per week. The individual average concentrations shall then be used to determine the allowable NO_x concentrations in the furnace stacks using the equation in Special Condition No. 2. **(PSD) (02/08)**

The GC shall be calibrated at least once every day using a standard gas with hydrogen and methane contents within ± 10 percent of the expected fuel gas composition based on the feed composition to the pyrolysis furnaces. Calibration of the GC is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Recordkeeping

28. Records of the hours of operation and mode of each furnace or heater during startup, shutdown, decoking or standby mode of operation shall be maintained for a rolling two-year period and be made readily available to TCEQ personnel upon request. **(PSD)**

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 19

Records of the monthly production and total annual production of ethylene for the 12 preceding months shall be made in a similar manner. Production data shall be reduced to monthly and annual totals at least once each month.

These records shall compare the operational modes of all furnaces and total the number of furnaces being used to crack feedstock on an hourly basis. The number of furnaces being decoked shall also be totaled.

This data and any necessary supporting information shall be used to determine compliance with the operational limits set forth in Special Condition No. 9 and the production rates set forth in Special Condition No. 10. All records shall be made readily available to TCEQ personnel upon request.

29. The holder of this permit shall keep records of the heat content of the plant fuel gas or any other fuel firing the pyrolysis furnaces on a Btu basis. The records shall be maintained for a rolling two-year period and be made readily available to TCEQ personnel upon request. **(PSD)**

This data and any necessary supporting information shall be used to determine compliance with the annual emission rates set forth in Special Condition Nos. 1, 2, and 4. All records shall be made readily available to TCEQ personnel upon request.

30. The holder of this permit shall submit at the request of the TCEQ Corpus Christi Regional Office documentation which demonstrates that the holder is achieving compliance with all the conditions of the permit. This documentation shall consist of a statement explaining how each requirement in a condition is being met. It will include a sample of each record sheet required to be maintained by any condition and a listing of all testing required with test dates.
31. This facility shall comply with all applicable requirements of the EPA regulations on Standards of Performance for New Stationary Sources in 40 CFR Part 60, promulgated for the following:
- A. Volatile Organic Liquid Storage Vessels, Subparts A and Kb.
 - B. Equipment Leaks of VOC in the SOCMI, Subparts A and VV.
 - C. VOC from SOCMI Distillation Operations, Subparts A and NNN.
 - D. VOC from SOCMI Reactor Processes, Subparts A and RRR.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 20

32. This facility shall comply with all applicable requirements of EPA regulations on NESHAPS in 40 CFR Part 61 promulgated for the following: (PSD)
 - A. Equipment Leaks of Benzene, Subparts A and J.
 - B. Equipment Leaks (Fugitive Emission Sources), Subparts A and V.
 - C. Benzene Emissions from Benzene Waste Operations, Subparts A and FF.
33. This facility shall comply with all applicable requirements of 30 TAC § 113. (110, 120, 130, 550, and 560), including the referenced requirements contained in the EPA regulations in 40 CFR Part 63, Subparts F, G, H, XX, and YY.
34. The following requirements apply to capture systems for each flare designated as EPNs 1018, 1067, and 8003B authorized in this permit.
 - A. If used to control pollutants other than particulate, either:
 - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
 - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. Each control device shall not have a bypass.

or

If there is a bypass for each control device, comply with either of the following requirements:

 - (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
 - (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 21

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

- C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Maintenance, Startup, and Shutdown (MSS)

- 35. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit. **(11/12)**

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 22

Olefins I

Facilities	Description/ Emissions Activity	EPN**
All facilities*	Depressurize and purge to flare per Special Condition 36	1018, 1051, 8003B, 1067, 1087 or OL1-TEMP
All facilities*	Degas facilities to atmosphere after flare per Special Condition 36	1028
All facilities*	Fill and/or vent to flare during startup and shutdown	1018, 1051, 8003B, 1067, 1087 or OL1-TEMP
All facilities*	Drain liquid to remove water	1018, 1051, 8003B, 1067, 1087 or OL1-TEMP
Tanks (fix, float, pressure)	Refilling tanks after cleaning	1018, 1051, 8003B, 1067, 1087 or OL1-TEMP
Frac tanks	Temporary storage of process liquids	1028
Heat Exchangers, Filters and Other Equipment	Hydroblasting following depressurization and purge to flare	1028
Loading Arms	Emissions from fill line after filling tank	1028
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	1028
Flares	Maintenance on flares	1018, 1051, 8003B, 1067, 1087
Comb. Unit	Cracking furnace maintenance	1001 - 1008, 1009B, 1010B
Instruments	Maintenance and calibration	1028
Analyzers	Maintenance and calibration	1028
Sight glasses	Sampling and sight glass cleaning	1028
Transmitters	Maintenance and calibration	1028
Carbon canister	Canister replacements	1028

* All facilities include piping

** The Olefins 1 and Olefins 2 elevated flare systems serve as backup for each other for MSS control as needed.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 23

Olefins II

Facilities	Description/ Emissions Activity	EPN**
All facilities*	Depressurize and purge to flare per Special Condition 36	1018, 1051, 8003B, 1067, 1087 or OL2-TEMP
All facilities*	Degas facilities to atmosphere after flare per Special Condition 36	1068
All facilities*	Fill and/or vent to flare during startup and shutdown	1018, 1051, 8003B, 1067, 1087 or OL2-TEMP
All facilities*	Drain liquid to remove water	1018, 1051, 8003B, 1067, 1087 or OL2-TEMP
Tanks (fix, float, pressure)	Refilling tanks after cleaning	1018, 1051, 8003B, 1067, 1087 or OL2-TEMP
Frac tanks	Temporary storage of process liquids	1068
Heat Exchangers, Filters and Other Equipment	Hydroblasting following depressurization and purge to flare	1068
Loading Arms	Emissions from fill line after filling tank	1068
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	1068
Flares	Maintenance on flares	1018, 1051, 8003B, 1067, 1087
Relief valves	Maintenance and calibrations	1068
Comb. Unit	Cracking furnace maintenance	1054-62, 1091, N1011, N1012
Instruments	Maintenance and calibration	1068
Analyzers	Maintenance and calibration	1068
Sight glasses	Sampling and sight glass cleaning	1068
Transmitters	Maintenance and calibration	1068
Carbon canister	Canister replacements	1068

* All facilities include piping

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 24

- ** The Olefins 1 and Olefins 2 elevated flare systems serve as backup for each other for MSS control as needed.

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks, frac tanks and control devices for MSS activities (EPNs OL1-TEMP and OL2-TEMP). Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

- A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. The date and time of the MSS activity and its duration;

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 25

- E. The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

- 36. Except for instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements. **(11/12)**
 - A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.
 - B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
 - C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.
 - D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 26

- E. After degassing in accordance with Special Condition 37.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.
- (1) For MSS activities other than process unit startup, shutdown, hydroblasting, or turnaround, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
 - (2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 37. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.
- F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:
- (1) It is not technically practicable to depressurize or degas, as applicable, into the process.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 27

- (2) There is not an available connection to a plant control system (flare).
- (3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except for Attachment A activities, all instances of venting directly to atmosphere per Special Condition 37.F must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities.

- 37. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods: **(11/12)**
 - A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:
 - (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.
 - (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.
 - B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.
 - (1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 28

- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:
 - (a) Measured contaminant concentration (ppmv) < release concentration.
 - (b) Where the release concentration is:
 - (c) 10,000 mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector.

- (1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained. **(05/13)**
- (2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
- (3) A certified methane gas standard equivalent to 25% of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for pentane.

D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 29

the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

- (1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.
- (2) The sample bag shall be connected directly to the sample valve.
- (3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.
- (4) The two valves shall then be closed to seal the sample in the bag.
- (5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.
- (6) This process is repeated to collect additional samples.
- (7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

38. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site: **(11/12)**
 - A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.
 - B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.
 - C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 30

- (1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.
 - (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a “duckbill” or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.
 - (3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 37.
 - (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.
 - D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.
39. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities. **(11/12)**
- A. These requirements do not apply to vessels that do not vent to the atmosphere which store less than 100 gallons of liquid.

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 31

- B. The exterior surfaces of these tanks/vessels that are exposed to the sun shall be white or aluminum effective May 1, 2013. This requirement does not apply to tanks/vessels that only vent to atmosphere when being filled.
 - C. These tanks/vessels must be covered and equipped with fill pipes that discharge within 6 inches of the tank/vessel bottom.
 - D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all frac tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, dates put into and removed from service, control method used, tank capacity and volume of liquid stored in gallons, name of the material stored, VOC molecular weight, and VOC partial pressure at the estimated monthly average material temperature in psia. Filling emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations" and standing emissions determined using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."
 - E. If the tank/vessel is used to store liquid with VOC partial pressure less than 0.10 psi at 95°F, records may be limited to the days the tank is in service and the liquid stored. Emissions may be estimated based upon the potential to emit as identified in the permit application.
- 40. Equipment shall be depressurized, liquids removed, and degassed per Special Condition 37.A, B, C, and D prior to opening the facility for hydroblasting. Trapped vapor that cannot be degassed because of the presence of polymer plugs may be vented directly to atmosphere during hydroblasting. **(11/12)**
 - 41. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**
 - 42. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device. **(11/12)**

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 32

Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

- (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.
- (2) The CAS shall be sampled down stream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:
 - (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.
 - (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.
- (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 36.
- (4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 33

carbon canisters such that replacements can be done in the above specified time frame.

- (5) Records of CAS monitoring shall include the following:
 - (a) Sample time and date.
 - (b) Monitoring results (ppmv).
 - (c) Canister replacement log.
- (6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30% of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer. (EPNs OL1-TEMP or OL2-TEMP)

- (1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.
- (2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

As an alternative to Special Condition No. 42B(1) the thermal oxidizer may be tested to confirm a minimum 99 weight percent destruction efficiency. The results of the test will be used to determine the minimum operating temperature and residence time. Stack Test must have been performed within the last 12 months. Stack VOC concentrations and flow rates shall be measured in

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 34

accordance with applicable United States Environmental Protection Agency (EPA) Reference Methods. A copy of the test report shall be maintained with the thermal oxidizer and a summary of the testing results shall be included with the emission calculations.

- C. Internal Combustion Engine. (EPNs OL1-TEMP or OL2-TEMP)
- (1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.
 - (2) The engine must have been stack tested with butane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 37 are also acceptable for this documentation
 - (3) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation.
- D. The plant flare systems (EPN 1018, EPN 1051, EPN 1067, EPN 1087, or EPN 8003B).

SPECIAL CONDITIONS

Permit Numbers 19168 and PSDTX1226

Page 35

- E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.
 - (1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.
 - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 37.
 - (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.
- 43. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: July 3, 2013

Permit Numbers 19168 and PSDTX1226
Attachment A
Inherently Low Emitting Activities

Olefins I

Activity	Emissions		
	VOC	NO _x	CO
Maintenance of filters/strainers	X	X	X
Maintenance of loading arms	X	X	X
Maintenance of instruments	X		
Maintenance of analyzers	X		
Maintenance of sight glasses	X		
Maintenance of transmitters	X		
Carbon canister replacements	X		

Olefins II

Activity	Emissions		
	VOC	NO _x	CO
Maintenance of filters/strainers	X	X	X
Maintenance of instruments	X		
Maintenance of analyzers	X		
Maintenance of sight glasses	X		
Maintenance of transmitters	X		
Carbon canister replacements	X		
Maintenance of Loading Arms	X		

Dated: November 30, 2012

Permit Numbers 19168 and PSDTX1226
Attachment B
Routine Maintenance Activities

The following activities are subject to the full recordkeeping requirements specified by Special Condition 37.

Olefins I

Piping degassing
Maintenance on pumps
Maintenance on heat exchangers
Maintenance on compressors
Use of vacuum trucks

Olefins II

Piping degassing
Maintenance on pumps
Maintenance on heat exchangers
Maintenance on compressors
Use of vacuum trucks

Dated: November 30, 2012

Permit Numbers 19168 and PSDTX1226
Attachment C
Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 37.

Olefins I

Plant startup, shutdown, and turnaround/maintenance
Maintenance on storage tanks, including fixed roof tanks, pressure storage vessels, floating roof Tank landings, and the use of frac tanks
Maintenance on reactors, columns and other vessels
Maintenance emissions associated with flares
Hydroblasting of heat exchangers, filters and other small equipment
Activities not listed on Attachments A and B or not otherwise authorized

Olefins II

Plant startup, shutdown, and turnaround/maintenance
Maintenance on storage tanks, including fixed roof tanks, pressure storage vessels, floating roof Tank landings, and the use of frac tanks
Maintenance on reactors, columns and other vessels
Maintenance emissions associated with flares
Hydroblasting of heat exchangers, filters and other small equipment
Activities not listed on Attachments A and B or not otherwise authorized

Dated: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Number 19168/PSDTX76oM8

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Olefins I Unit				
1001	Pyrolysis Furnace	CO	12.23	35.97
		CO MSS (8)	47.23	-
		NO _x	31.03	132.73
		NO _x MSS (8)	34.03	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	4.69	12.43
1002	Pyrolysis Furnace	CO	12.23	35.97
		CO MSS (8)	47.23	-
		NO _x	31.03	132.73
		NO _x MSS (8)	34.03	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	4.69	12.43
1003	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		SO ₂	0.38	1.66
		VOC	2.67	11.69
1004	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	2.67	11.69
1005	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	2.67	11.69
1006	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	2.67	11.69

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1007	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	2.67	11.69
1008	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66
		VOC	2.67	11.69
1009	Decoke Drum (6)	CO	153.20	27.04
		PM/PM ₁₀	14.10	2.48
		VOC	0.03	0.01
1009B	Pyrolysis Furnace	CO	8.20	35.92
		CO MSS (8)	43.20	-
		NO _x	30.30	132.71
		NO _x MSS (8)	33.30	-
		PM ₁₀	3.69	16.16
		SO ₂	0.38	1.66

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC	2.67	11.69
1010B	Pyrolysis Furnace	CO	8.75	28.47
		CO MSS (8)	43.75	-
		NO _x	18.75	65.70
		NO _x MSS (8)	21.75	-
		PM ₁₀	3.96	17.34
		SO ₂	0.41	1.78
		VOC	2.31	10.13
1001-1008, 1009B, 1010B	Pyrolysis Furnace Cap	CO MSS	-	19.40
		NO _x MSS	-	-
1010	Cooling Tower	VOC	5.46	23.92
1011	CPI Oil/Water Separator	VOC	2.76	12.09
1012	MAPD Regenerator 3418F	CO	7.58	0.03
		VOC	0.24	0.01
1018	Olefins 1 Flare (7)	CO	14.41	61.83
		CO MSS	6221.16	155.46 (9)
		NO _x	2.77	12.13
		NO _x MSS	861.34	21.82 (9)
		SO ₂	0.10	0.05
		VOC	3.96	13.30
		VOC MSS	765.51	155.07 (9)
1020	Naphtha Tank 6401F	VOC	5.99	25.80
1028	Olefins 1 Fugitives (5)	VOC	28.04	122.83

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
OL1-MAINT	Olefins 1 Process MSS	VOC MSS	258.12	4.10
1048	Stormwater Filter Backwash Tank 7408F	VOC	1.18	0.03
1050	H ₂ SO ₄ Tank	H ₂ SO ₄	0.58	0.01
1051	Olefins 1 Tank Flare	CO	9.84	23.77
		CO MSS	-	0.01
		NO _x	1.93	5.97
		NO _x MSS	-	0.02
		SO ₂	0.02	0.05
		VOC	0.40	1.23
		VOC MSS	6.73	0.30
7900LJD	Diesel Emergency Generator (52 hours per rolling 12-months)	CO	0.44	0.01
		NO _x	13.40	0.35
		PM ₁₀	0.50	0.01
		SO ₂	2.79	0.07
		VOC	0.08	0.01
7900LJDF	Diesel Storage Tank	VOC	0.06	0.01
PGCLUBE	Lube Oil Reservoir	VOC	0.21	0.01
PRCERCLUBE	Lube Oil Reservoir	VOC	0.16	0.01
3602J1/J2L	Lube Oil Reservoir	VOC	0.21	0.01
PGCSEAL	Seal Oil Reservoir	VOC	0.21	0.01
PRCERCSEAL	Seal Oil Reservoir	VOC	0.21	0.01
2412FCC	Sump Carbon Canister	VOC	0.01	0.01
C29600	Additive Tank	VOC	1.94	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
C29601	Additive Tank	VOC	2.01	0.01
N83070	Additive Tank	VOC	0.05	0.01
N83071	Additive Tank	VOC	0.06	0.01
N79134	Additive Tank	VOC	6.08	0.01
Olefins II Unit				
1054	Pyrolysis Furnace	CO	12.57	-
		CO MSS (8)	47.57	-
		NO _x	20.02	-
		NO _x MSS (8)	23.02	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	4.82	-
1055	Pyrolysis Furnace	CO	12.57	-
		CO MSS (8)	47.57	-
		NO _x	20.02	-
		NO _x MSS (8)	23.02	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	4.82	-
1056	Pyrolysis Furnace	CO	12.57	-
		CO MSS (8)	47.57	-
		NO _x	20.02	-
		NO _x MSS (8)	23.02	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	4.82	-
1057	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	2.80	-
1058	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	2.80	-
1059	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC	2.80	-
1060	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	2.80	-
1061	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	2.80	-
1062	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	2.80	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1091	Pyrolysis Furnace	CO	8.54	-
		CO MSS (8)	43.54	-
		NO _x	19.29	-
		NO _x MSS (8)	22.29	-
		PM ₁₀	3.86	-
		SO ₂	0.40	-
		VOC	2.80	-
1054-1062, 1091	Pyrolysis Furnaces Annual Caps	CO	-	319.07
		NO _x	-	720.58
		PM ₁₀	-	144.32
		SO ₂	-	14.81
		VOC	-	106.66
N1011	Pyrolysis Furnace	CO	8.75	28.47
		CO MSS (8)	43.75	-
		NO _x	18.75	65.70
		NO _x MSS (8)	21.75	-
		PM ₁₀	3.96	17.34
		SO ₂	0.41	1.78
		VOC	2.31	10.13
N1012	Pyrolysis Furnace	CO	8.75	28.47
		CO MSS (8)	43.75	-
		NO _x	18.75	65.70
		NO _x MSS (8)	21.75	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		PM ₁₀	3.96	17.34
		SO ₂	0.41	1.78
		VOC	2.31	10.13
1054-1062, 1091, N1011, N1013	Pyrolysis Furnace Cap	CO MSS	-	12.90
		NO _x MSS	-	-
1063	Decoke Drum (6)	CO	167.90	34.69
		PM/PM ₁₀	15.42	3.18
		VOC	0.03	0.01
1064	Cooling Tower	VOC	5.28	23.15
1065	CPI Oil/Water Separator	VOC	2.76	12.09
1066	MAPD Regenerator	CO	7.58	0.03
		VOC	0.24	0.01
1067	Olefins 2 Flare	CO	22.39	98.09
		CO MSS	6221.16	155.46 (9)
		NO _x	4.40	19.25
		NO _x MSS	861.34	21.82 (9)
		SO ₂	0.02	0.11
		VOC	7.55	14.90
		VOC MSS	761.65	155.07 (9)
1068	Olefins 2 Fugitives (5)	VOC	27.28	119.47
OL2-MAINT	Olefins 2 Process MSS	VOC MSS	237.61	2.40
1085	Fuel Oil Tank N6499FA	VOC	0.83	0.49
1086	Fuel Oil Tank N6499FB	VOC	0.83	0.49

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1087	Olefins 2 Tank Flare	CO	12.48	8.70
		CO MSS	16.08	0.39
		NO _x	1.46	6.35
		NO _x MSS	3.12	0.08
		SO ₂	0.02	0.08
		VOC	0.26	0.66
		VOC MSS	45.90	1.13
1088	Wash Oil Day Tank 2410F	VOC	0.91	0.09
1089	Stormwater Recycle Tank N7408F	VOC	1.18	0.03
1090	H ₂ SO ₄ Tank	H ₂ SO ₄	0.58	0.01
N7900LJD	Diesel Emergency Generator (52 hours per rolling 12-months)	CO	4.16	0.11
		NO _x	9.13	0.24
		PM ₁₀	0.58	0.02
		SO ₂	1.85	0.05
		VOC	0.10	0.01
NPGCLUBE	Lube Oil Reservoir	VOC	0.21	0.01
NPRCERCLUB	Lube Oil Reservoir	VOC	0.16	0.01
N3602JLUBE	Lube Oil Reservoir	VOC	0.21	0.01
NPGCSEAL	Seal Oil Reservoir	VOC	0.21	0.01
N2412FCC	Sump Carbon Canister	VOC	0.01	0.01
N5704LF3CC	Zimpro Carbon Canister	VOC	0.04	0.01
N7460LFCC	Polymer Inhibitor Tank Carbon Canister	VOC	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
N920766	Additive Tank	VOC	1.94	0.01
N920425	Additive Tank	VOC	2.01	0.01
N1705L2F	Additive Tank	VOC	0.22	0.01
N1705L5F	Additive Tank	VOC	0.22	0.01
Gasoline Hydrotreater Unit				
8001B	Regeneration Heater (1,000 hours per year)	CO	1.92	0.96
		NO _x	0.66	0.33
		PM ₁₀	0.17	0.09
		SO ₂	0.02	0.01
		VOC	0.13	0.07
8002B	Second Stage Feed Heater	CO	0.70	3.09
		NO _x	0.24	1.05
		PM ₁₀	0.06	0.28
		SO ₂	0.01	0.01
		VOC	0.05	0.20
8003B	GHU Flare	CO	9.07	26.71
		CO MSS	6.58	0.37
		NO _x	2.28	6.71
		NO _x MSS	1.28	0.07
		SO ₂	0.01	0.02
		VOC	3.43	10.09
		VOC MSS	18.78	1.07
8801U	Cooling Tower	VOC	1.32	5.79

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
8801F	Process Fugitives (5)	VOC	1.00	4.38
Propylene Purification Unit				
PPUFUG-1	Unloading Station Fugitives (5)	VOC	0.23	1.01
PPUFUG-2	Process Fugitives (5)	VOC	9.24	40.46
PPUFUG-3	Storage Spheres Fugitives (5)	VOC	2.12	9.26
PPULUBE	Lube Oil Reservoir	VOC	0.01	0.01
West Metering Station				
WMS-1	UCC West Metering Station Analyzer Purge	VOC	0.25	1.10
Natural Gas Liquids Fractionation Unit				
FRACII-FUG	Process Fugitives (5)	VOC	1.32	5.80
FRACII-CT	Cooling Tower	VOC	1.50	6.58
		PM	0.75	3.29
		PM ₁₀	0.42	1.83
		PM _{2.5}	0.01	0.01
FRACII-VO	Vessel Opening	VOC MSS	3.02	0.10
1067	Olefins 2 Flare FRACII Sources Normal Operation	CO	0.66	2.88
		NO _x	0.09	0.40
		SO ₂	0.01	0.01
		VOC	0.05	0.23
1067	Olefins 2 Flare FRACII Sources Startup/Shutdown	CO MSS	4.79	0.36
		NO _x MSS	0.66	0.05
		SO ₂ MSS	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC MSS	8.19	0.61
1067	Olefins 2 Flare FRACII Sources Flare Purging MSS	CO MSS	4.29	0.70
		NO _x MSS	0.59	0.10
		SO ₂ MSS	0.01	0.01
		VOC MSS	8.67	1.56

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) CO - carbon monoxide
NO_x - total oxides of nitrogen
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
PM_{2.5} - total particulate matter equal to or less than 2.5 microns in diameter
SO₂ - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
H₂SO₄ - sulfuric acid (98 percent)
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) No more than 6 pyrolysis furnaces shall be decoked at any one time: two furnaces to decoke drum EPN 1009, two furnaces to decoke drum EPN 1063, and two furnaces to either decoke drum EPN 1009 or to decoke drum EPN 1063.
- (7) Only one flare may be used to control startup emissions at one time.
- (8) Only two pyrolysis furnaces may emit at these maximum lb/hr CO and NO_x allowable emission rates simultaneously.
- (9) TPY allowable emission rates for CO, NO_x and VOC MSS reflect combined cap for flares 1018 and 1067.

Date: July 3, 2013



**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT**



A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
Ethylene Glycol Plant
Located at Point Comfort, Calhoun County, Texas

Latitude 28° 41' 20" Longitude 96° 32' 50"

Permits: 19198 and PSDTX1234

Amendment Date : April 2, 2013

Renewal Date: September 1, 2016

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates", and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.

Fugitive Emission Monitoring

2. Piping, Valves, Connectors, Pumps, Agitators, and Compressors - 28VHP
(02/11)

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) Piping and instrumentation diagram (PID);
 - (2) A written or electronic database or electronic file;
 - (3) Color coding;
 - (4) A form of weatherproof identification; or
 - (5) Designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
 - C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 2

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 3

and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 4

These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 5

Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

- K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
 - L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
 - M. With respect to Paragraph E of this special condition, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.
- 3. In lieu of the 2000 ppmv VOC limit in Special Condition 2.H, damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(02/11)**
 - 4. Process fugitive equipment in ethylene oxide service shall also be subject to all of the requirements of Special Condition No. 2.
 - 5. Piping, Valves, Pumps, Flanges and Compressors in VOC Service - 28PI
 - A. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 6

Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

- B. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- C. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined in 30 TAC Chapter 115, shall be identified in a list to be made available upon request.
- D. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

- E. All piping components shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.
 - F. Damaged or leaking valves, connectors, compressor seals, and pump seals found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.
 - G. Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the TCEQ upon request.
6. Compounds containing VOC with a true vapor pressure between 0.0147 psia and 0.1470 psia at absolute pressure (psia) at 68°F, shall comply with the process fugitive requirements of Special Condition No. 5

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 7

7. Flange Instrument Monitoring Once a Year for Equipment in EO and VOC Service - 28 CNTA

In addition to the weekly physical inspection required by Special Condition No. 2.E all flanges in gas/vapor and light liquid EO and VOC service shall be monitored annually with an approved gas analyzer in accordance with Special Condition No. 2.F through 2.J. Alternative monitoring frequency schedules ("skip options") of 40 CFR Part 63, Subpart H, National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, may be used in lieu of the monitoring frequency required by this permit condition. Compliance with this condition does not assure compliance with requirements of applicable state or federal regulation and does not constitute approval of alternative standards for these regulations.

8. Storage tanks are subject to the following requirements:

- A. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- B. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12-month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions for tanks shall be calculated using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks" and using the edition of AP-42, "Compilation of Air Pollutant Emission Factors," in effect on the date this permit was issued (or the edition in effect on the last date the permit was amended, if the permit has been amended).

- C. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 8

Operational Standards

9. The Caustic Tank GT552, identified as Emissions Point No. (EPN) EP552, shall be used to store only an aqueous solution of sodium hydroxide.
10. The Storage Tank GT750, identified as EPN EP750, shall be used to store only a mixture of triethylene glycol, polyethylene glycol and diethylene glycol.
11. The regenerative thermal oxidizer shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis, corrected to 3 percent oxygen, or achieve VOC destruction efficiency greater than 99 percent. **(4/13)**

The Regenerative Thermal Oxidizer, EPN RTO221, the six minute, average firebox chamber temperature shall be maintained at not less than 1608°F and the hourly average exhaust oxygen concentration shall be maintained at not less than 5 percent(as was established during initial stack test) while waste gas is being fed into the oxidizer.

The Regenerative Thermal Oxidizer, EPN RTO221, oxidizer average firebox chamber temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

Quality assured (or valid) data must be generated when the Regenerative Thermal Oxidizer, EPN RTO221, is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Regenerative Thermal Oxidizer, EPN TO221, operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 9

12. The Incinerator (EPN EP910) firebox exit temperature shall be maintained at not less than 1600°F while VOC containing waste gas is being fed to the incinerator. The incinerator firebox exit temperatures shall be continuously monitored and recorded. The standby incinerator firebox exit temperature shall be maintained at not less than 800°F. The incinerator firebox exit temperature shall be continuously monitored and recorded when VOC containing waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of six minutes or less and record it at that frequency. **(4/13)**
13. The temperature measurement device shall be installed, calibrated, maintained and operated according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$. Quality-assured (or valid) data must be generated when the ethylene glycol plant authorized in this permit is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the ethylene glycol plant operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.
14. The Common Incinerator Stack (EPN EP910) shall operate at not less than 2.0 percent oxygen (O_2) and not more than 100 ppmv dry carbon monoxide (CO), corrected to 0 percent excess air in the incinerator stack except during planned periods of startup and shutdown (refractory dry-out and startup).

Each incinerator venting to the Common Incinerator Stack (EPN EP910) shall operate with no less than 99.99 percent efficiency based on a rolling 60-minute average in disposing of the VOC compounds captured by the collection system sent to it during normal operation. Startup, shutdown, and maintenance emissions are not authorized by this special condition from either incinerator.
15. The following requirements apply to capture systems for EPNs EP910 and RTO221 which is subject to CAM. **(4/13)**
 - A. EPNs RTO 221 and EP 910 are used to control pollutants other than particulate matter, must either:
 - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 10

- (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control devices (EPNs RTO221 and EP 910) shall not have a bypass

or

If there is a bypass for EPNs RTO221 and EP910, comply with either of the following requirements:

- (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
- (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

16. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for the following:

- A. Small Industrial, Commercial and Institutional Steam Generating Units for the Waste Heat Boiler (EPN EP910), in 40 CFR Part 60, Subparts A and Dc.
- B. Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction or Modification Commenced After July 23, 1984, in 40 CFR Part 60, Subparts A and Kb.
- C. Equipment Leaks of VOCs in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) in 40 CFR Part 60, Subparts A and VV.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 11

- D. VOC Emissions from SOCM I Distillation Operations, in 40 CFR Part 60, Subparts A and NNN.
 - E. VOC Emissions from SOCM I Reactor Processes, in 40 CFR Part 60, Subparts A and RRR.
17. These facilities shall comply with all applicable requirements of 30 TAC § 113.110 for SOCM I (40 CFR Part 63 Subpart F).
18. The VOC associated with cooling tower water shall be monitored monthly with an approved air stripping system defined as the El Paso Products Company Method of Analysis or equivalent method previously approved in writing from the TCEQ Office of Air, Air Permits Division by the holder of this permit. The El Paso Products method is described in the TCEQ guidance document entitled "Air Quality Permit Technical Guidance for Chemical Sources - Cooling Towers," dated February 2001. The results of the monitoring and maintenance efforts shall be recorded, and such records shall be maintained for a period of two years. The records shall be made readily available to representatives of the EPA and TCEQ upon request.

Initial Compliance

19. Sampling ports and platform(s) shall be incorporated into the design of each incinerator stack and regenerator condenser stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.
20. The holder of this permit shall perform stack sampling and other testing as required to establish the destruction efficiency and actual pattern and quantities of air contaminants being emitted into the atmosphere from each incinerator and the regenerator condenser. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their expense. The sampling was completed in April 2005 for EPN EP221, in May 2005 for EPN EP910 and in October 2012 for RTO221.
- (4/13)**

- A. The TCEQ Corpus Christi Regional Office shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 12

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review and formalize the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Austin Compliance Support Division. Test waivers and alternate or equivalent procedure proposals must have EPA and TCEQ approval, and requests shall be submitted to the TCEQ Regional Office.

- B. Air contaminants emitted from the incinerator to be tested for include (but are not limited to) VOC, nitrogen oxides (NO_x), and CO. Sampling shall be performed using EPA Reference Methods 1 through 4 and 18 or 25A for VOC, Reference Method 7 or 7E for NO_x and Reference Method 10 for CO.

Air contaminants emitted from the regenerator condenser to be tested for include (but are not limited to) total VOC.

- C. Sampling shall occur within 60 days after initial start-up of the facility and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires prior approval, and requests shall be submitted to the TCEQ Regional Office.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 13

- D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.
- E. Three copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.

One copy to the Air Enforcement Branch, EPA, Dallas Office.

Ongoing Compliance

- 21. The holder of this permit shall install, calibrate, maintain and operate a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of CO and O₂ from the Common Incinerator Stack (EPN EP910). **(3/07)**
 - A. The CEMS shall meet the design and performance specifications, pass the field tests and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.

Field performance testing of the CEMS shall be initiated within 60 days after initial start-up. The date of commencement of monitor certification testing shall be provided to the TCEQ Regional Office at least 30 days prior to the start of the monitor testing. Copies of the certification test report shall be forwarded to the TCEQ and EPA, as described in Special Condition No. 20.E, within 30 days after completion of the monitor certification.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 14

- B. Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:

- (1) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
- (2) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.

- C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rates in pounds an hour and cumulative tons per year at least once every week as follows:

The measured hourly average concentration from the CEMS shall be multiplied by the flow rate measured during the latest stack test performed in accordance with Special Condition No. 19, to determine the hourly emission rate.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 15

- D. All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.

Quality-assured (or valid) data must be generated when the ethylene glycol facility is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the ethylene glycol facility operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.

- E. Quarterly reports of all excessive emissions and CEMS downtime shall be submitted to the appropriate TCEQ Regional Director. The reports shall include the information described in 40 CFR § 60.7(c) plus the hours of operation of the source during the reporting period.
- F. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
22. The carbon dioxide vent gas flow rate from the regenerator condenser and EO concentration from EPN EP221 shall be continuously monitored and recorded. The product of these two measurements shall be used to determine continuous compliance with the emission limit of Special Condition No. 1. Flow monitors shall be calibrated annually with Regional Office-approved TCEQ procedures.
23. The holder of this permit shall install, calibrate, maintain and operate a CEMS to measure and record the in-stack concentration of EO from the regenerator condenser designated as EPN EP221.
- A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. The TCEQ in Austin shall be contacted for approval of appropriate performance specifications and performance specification testing for the EO monitoring system. Such performance specifications and the appropriate performance specification testing and demonstration procedures shall be approved by both the TCEQ and EPA.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 16

Field performance testing of the CEMS shall be initiated within 60 days after initial start-up. The date of commencement of monitor certification testing shall be provided to the TCEQ Regional Office at least 30 days prior to the start of the monitor testing. Three copies of the certification test report shall be forwarded to the TCEQ and EPA as described in Special Condition No. 20.E, within 30 days after completion of the monitor certification tests.

- B. The system shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amount specified in 40 CFR Part 60, Appendix B, or as specified by the TCEQ, if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

Each monitor shall be quality-assured at least quarterly in accordance with 40 CFR Part 60, Appendix F, Procedure 1. An equivalent method approved by the TCEQ and EPA may be used.

- C. The monitoring data shall be reduced to hourly average concentrations at least once every day using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable an emission rate in pounds per hour at least once every day.
- D. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS will be used to determine compliance with the conditions of this permit.
- E. All CGA exceedances of +15 percent accuracy and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

Quarterly reports of all excessive emissions and CEMS downtime shall be submitted to the appropriate TCEQ Regional Director. The reports shall include the information described in 40 CFR § 60.7(c) plus the hours of operation of the source during the reporting period.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 17

- F. For NSPS sources subject to Appendix F, the appropriate TCEQ Regional Office shall be notified at least 30 days prior to each annual RATA in order to provide TCEQ staff the opportunity to observe the testing.
24. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions with the exception of those listed below.
- Safety relief valves in VOC service that discharge to the atmosphere and were installed prior to April 1994 provided that each valve is equipped with a rupture disc upstream and control valves PV-322A, FV-210B, FV-164, and XV-936 provided that each valve is equipped with a rupture disc downstream.
25. The holder of this permit shall submit at the request of the TCEQ Corpus Christi Regional Office documentation which demonstrates that the holder is achieving compliance with all the conditions of the permit. This documentation shall consist of a statement explaining how each requirement in a condition is being met. It will include a sample of each record sheet required to be maintained by any condition and a listing of all testing required with test dates.

Maintenance, Startup, and Shutdown (MSS)

26. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit. **(11/12)**

Facilities	Description/ Emissions Activity	EPN
All Equipment *	Open to atmosphere per Special Condition 28	EG-MAINTAB
Fixed Roof Tanks	Pump out liquids and open to atmosphere	EG-MAINTAB
Incinerator	Startup – Refractory Curing,	EP910
Incinerator	Inspection and Finger Cleaning	EG-MAINTAB
CO2 Regenerator Vent	Startup and shutdown	EP221
100 area	Vent to atmosphere after reactor shutdown	EG-MAINTC
200 area	Vent to atmosphere after reactor	EG-MAINTC

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 18

	shutdown	
300 area	Vent to atmosphere after reactor shutdown	EG-MAINTC
GB 320	Vent to atmosphere during reclaim compressor downtime	EG-MAINTC
Wastewater Tanks and Hot Wells	Vent to atmosphere during incinerator downtime	EG-MAINTAB
All Attachment A Activities	Vent to Atmosphere and/or open as necessary	EG-MAINTAB
EDC system	Remove liquids and depressure	EG-MAINTAB
Vacuum trucks	Load and transport liquid	EG-MAINTAB
Ethylene Oxide Reactors	Abrasive Blasting	EG-MAINTC

* All Equipment includes piping.

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and associated control devices. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility.

27. This permit authorizes the emissions from the facilities identified in Special Condition 26 for the planned MSS activities summarized in the MSS Activity Summaries (Attachments A, B and C) attached to this permit. **(11/12)**

Attachment A identifies the inherently low emitting MSS activities that may be performed at the site. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 19

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

- A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. The date and time of the MSS activity and its duration;
- E. The estimated quantity of each air contaminant or mixture of air contaminants, emitted with the data and methods used to determine the estimate. The emissions shall be estimated using the methods identified in the permit application, PI-1 dated January 3, 2008, and supplemental submittals.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis. **(11/12)**

- 28. For 100, 200, 300 areas, except for the EDC system, plant equipment containing materials with a VOC partial pressure greater than 0.5 psia may not be opened to the atmosphere for maintenance unless one of the measurement methods described in Special Condition 29 indicates that concentrations in the cycle gas system (taken in the 100 and 200 areas) are less than 3 mole % ethylene. **(11/12)**
- 29. The gas concentrations measured for compliance with Special Condition 28 will be determined with one of the following methods: **(11/12)**
 - A. The mass spectrometers in the cycle gas system (located in the 100 and 200 areas) shall be maintained and calibrated per FPC standard operating procedures (SOP). The equipment will be calibrated with a certified calibration standard that meets the FPC SOP and manufacturer's recommendation.
 - B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 20

- (1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) Prior to uncontrolled venting, at least 2 samples taken at least 5 minutes apart must show that the measured contaminant concentration (ppmv) is less than the release concentration.

Where the release concentration for ethylene: 30,000 ppmv.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

- C. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:
- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.
 - (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.
- D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 21

- (1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.
- (2) The sample bag shall be connected directly to the sample valve.
- (3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.
- (4) The two valves shall then be closed to seal the sample in the bag.
- (5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.
- (6) This process is repeated to collect additional samples.
- (7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.5 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

30. For the 500, 600, 700 and 900 areas: **(11/12)**
 - A. Equipment shall not be mechanically ventilated with blowers or air movers during maintenance activities.
 - B. Liquid vacuum truck may be used only in these areas of the ethylene glycol plant.
31. Reactor abrasive blasting at the site shall meet the following requirements: **(11/12)**
 - A. The abrasive blasting area shall be shrouded during abrasive blasting.
 - B. Blast media usage is limited to 1700 lbs/hr and may be coal slag, nickel slag, or industrial garnet, or other similar dust media provided that it does not contain asbestos.

SPECIAL CONDITIONS

Permit Numbers 19198 and PSDTX1234

Page 22

- C. The MSDS for each media used shall be maintained on site.
 - D. Blasting media usage hours, location and rate shall be recorded daily.
 - E. Abrasive blasting emissions shall be estimated and recorded in accordance with Special Condition 33.
 - F. During abrasive blasting no visible emissions shall leave the property.
32. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**
33. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated April 2, 2013

Permit Numbers 19198 and PSDTX1234
Attachment A
Inherently Low Emitting Activities

Activity	Emissions			
	VOC	NO _x	CO	PM
(GI-910A/B) Incinerators	X			
EP-910 (on GI-910A/B)			x	
Level Gauge (LG-931/932)	X			
WW Piping	X			
Catalyst Change-out	X			x
Mole Sieve Desiccant Change-out				x
WW Sampling	X			
Closed System Sample (Liquid and Gas)	X			
Open Container Sample (Liquid)	X			
De-Inventory Draining	X			

Dated: April 2, 2013

Permit Numbers 19198 and PSDTX1234
Attachment B
Routine Maintenance Activities

Activity	Emissions			
	VOC	NOx	CO	PM
Hot Wells and Tanks	X			
Columns and Associated Reboilers	X			
MEG & Crude Glycol Tank	X			
GT-974, 975 & GT-978	X			
EDC System	X			
Product Piping	X			
Vessels	X			
GV-910 (knockout pot)	X			
Vacuum Truck	X			

Dated: November 30, 2012

Permit Numbers 19198 and PSDTX1234
Attachment C
Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 27

100 Area De-pressure
200 Area De-pressure
300 Area De-pressure
GB-320 Venting During Reclaim Compressor Repairs
EP-221 CO2 Recovery System Startup/Shutdown
Ethylene Oxide Reactors - Abrasive Blasting
Activities not listed on Attachments A and B or not otherwise authorized

Dated: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Number 19198 and PSDTX1234

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EG-CT	Cooling Tower	VOC	1.99	8.69
EP221	CO ₂ Regenerator Vent and Recovery System (6)	VOC	115.42	10.39
EP552	Caustic Tank GT552	NaOH	0.01	0.01
RTO221	RTO Vent (Normal Operation)	NO _x	0.51	2.25
		CO	0.43	1.89
		VOC	1.50	6.65
		PM ₁₀	0.04	0.17
		PM _{2.5}	0.04	0.17
		SO ₂	0.01	0.01
EP615	GT615 Tank	VOC	2.55	0.34
EP630A	GT630A Tank	VOC	0.22	0.11
EP630B	GT630B Tank	VOC	0.22	0.11
EP630C	GT630C Tank	VOC	0.22	0.11
EP725A	GT725A Tank	VOC	0.01	0.01
EP725B	GT725B Tank	VOC	0.01	0.01
EP730A	GT730A Tank	VOC	0.01	0.01
EP730B	GT730B Tank	VOC	0.01	0.01
EP740	GT740 Tank	VOC	0.01	0.01
EP750	GT750 Tank	VOC	0.01	0.01
EP806	GT806 Tank	VOC	0.41	0.38
EP807	GT807 Tank	VOC	0.41	0.38
EP808	GT808 Tank	VOC	0.02	0.02
EP809	GT809 Tank	VOC	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EP910	Common Incinerator Stack	CO	1.56	6.83
		CO MSS	4.00	-
		NO _x	1.44	6.31
		PM ₁₀	0.25	1.08
		SO ₂	0.03	0.11
		VOC	0.06	0.25
PF-LO1	Crude Glycol and PEG Loading Losses	VOC	1.25	0.02
EGFUG1	Process Piping Fugitives (5)	EtO	0.07	0.32
		VOC (7)	1.86	8.11
EGMAINTAB	Equipment MSS Emissions (8)	VOC	223.00	1.00
		PM	0.29	0.30
		PM ₁₀	0.12	0.30
		PM _{2.5}	0.09	0.20
EGMAINTC	Equipment MSS Emissions (9)	VOC	2430.00	21.10

Emission Sources - Maximum Allowable Emission Rates

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
 - EtO - ethylene oxide
 - NaOH - sodium hydroxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Emission rates are associated with MSS activities.
- (7) Ethylene oxide emissions are not included in the VOC emissions total.
- (8) Emission rates are associated with activities listed in Attachments A and B.
- (9) Emission rates are associated with activities listed in Attachment C.

Date: April 2, 2013



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
Petrochemical Manufacturing
Located at Point Comfort, Calhoun County, Texas
Latitude 28° 41' 20" Longitude 96° 32' 50"

Permit: 19199 and PSDTX1238

Revision Date : May 28, 2013

Renewal Date: December 2, 2015


For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 19199 and PSDTX1238

Emissions Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other conditions specified in this permit. **(12/05)**

Federal Applicability

2. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for the following:
 - A. Small Industrial-Commercial-Institutional Steam Generating Units in Title 40 Code of Federal Regulations (40 CFR) Part 60, Subparts A and Dc.
 - B. Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 in 40 CFR Part 60, Subparts A and Kb.
 - C. Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemical Manufacturing Industry (SOCMI) in 40 CFR Part 60, Subparts A and VV.
 - D. The VOC Emissions from SOCMI Distillation Operations in 40 CFR Part 60, Subparts A and NNN.
 - E. The VOC Emissions from SOCMI Reactor Processes in 40 CFR Part 60, Subparts A and RRR. **(12/05)**
3. These facilities shall comply with all applicable requirements of EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Source Categories promulgated for the following:
 - A. SOCMI in 40 CFR Part 63, Subparts A and F.
 - B. SOCMI Process Vents, Storage Vessels, Transfer Operations, and Wastewater in 40 CFR Part 63, Subparts A and G.
 - C. Equipment Leaks in 40 CFR Part 63, Subparts A and H. **(12/05)**

Emission Controls

4. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions, with the exception of those listed below. **(12/05)**

Equipment No.	Description	Tag No.
DR-101A	Ethylene Dichloride (EDC) Reactor A	RV-101A RV-102A RV-102C
DR-101B	EDC Reactor B	RV-101B RV-102B RV-102C
DR-101C	EDC Reactor C	RV-101C RV-102E RV-102F
DC-102	Light Ends Distillation Column	RV-105 RV-106
DC-103	Heavy Ends Distillation Column	RV-107 RV-108
DC-104	EDC Recovery Column	RV-110
DV-301	Wet Waste Gas Buffer Tank	RV-301
DV-302	Dry Waste Gas Buffer Tank	RV-302
DC-105	HC1 Stripper Column	RV-111

5. The Incinerator-Scrubber System identified as Emission Point No. (EPN) 6002A/B/C shall achieve a destruction efficiency of the carbon compounds, excluding carbon dioxide, of no less than 99.95 percent, on a rolling 60-minute average. The Incinerator-Scrubber System shall maintain the hydrogen chloride (HCl) and chlorine (Cl₂) concentrations in the system exhaust so that they do not exceed 7.4 and 7.5 parts per million by volume (ppmv) (ppmv, dry conditions, no excess air, on a rolling 60-minute average), respectively. **(12/05)**
6. The Incinerator-Scrubber System firebox exit temperature shall be maintained at not less than 1600°F and the incinerator combustion chamber oxygen (O₂) concentration not less than 3 percent while waste gas is being fed into the system. **(04/07)**
7. The Incinerator-Scrubber System firebox exit temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of six minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Fahrenheit or ±4.5°F. **(04/07)**

Quality assured (or valid) data must be generated when the Incinerator-Scrubber System is operating, except during the performance of an accuracy check, which will be performed at intervals of not more than six months. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12-

month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**

8. The O₂ analyzer used to satisfy Special Condition No. 6 shall continuously monitor and record O₂ concentration when waste gas is directed to the oxidizer. It shall reduce the O₂ readings to an averaging period of 6 minutes or less and record it at that frequency. **(04/07)**

The O₂ analyzer shall be installed, calibrated, and maintained according to accepted industry practice and the manufacturer's specifications. The analyzer shall be calibrated at the intervals recommended by the manufacturer, but the interval between calibrations shall never exceed one month. Copy of the accepted industry practice and the manufacturer's specifications shall be maintained on site and made available to Texas Commission on Environmental Quality (TCEQ) representatives upon request.

Quality-assured (or valid) data must be generated when the Incinerator-Scrubber System is operating, except during the performance of a monthly calibration check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**

9. The exit temperature of the stand-by oxidizer firebox shall be maintained at not less than 800°F on a rolling 60-minute average. **(12/05)**
10. The permit holder shall install and maintain an absorber in each of the incinerator-scrubber systems venting through the Stack identified as EPN 6002A/B/C. The absorbers A, B, and C shall be subject to the following conditions: **(04/07)**
 - A. The minimum water circulation rate shall be greater than 70 gallons per minute (gpm) for absorbers A and B, and greater than 345 gpm for absorber C. The circulation rate shall be monitored and recorded at least once a day. **(04/07)**
 - B. The maximum absorber exhaust gas temperature shall not exceed 200°F. The holder of this permit shall install and maintain a temperature monitor for the absorber exhaust. The temperature shall be recorded at least every day. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least annually, whichever is more frequent, and shall be accurate to within 2 percent of the reading or 4.5 degrees Fahrenheit. **(04/07)**
 - C. The HCl concentration in the liquid purge shall not exceed 15 percent.
 - D. Records of the water circulation rate, temperature of the gas exiting the absorber and the HCl concentration in the liquid purge shall be made available to the TCEQ Executive Director or his representative upon request.
 - E. Quality-assured (or valid) data must be generated when waste gas is being directed to the oxidizer. Loss of valid data due to periods of monitor break down, out-of-

control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**

11. The permit holder shall install and maintain a caustic scrubber in each of the incinerator-scrubber systems venting through the stack identified as EPN 6002A/B/C. The caustic scrubbers A, B, and C shall be subject to the following conditions: **(04/07)**
 - A. The scrubbing solution shall be maintained at or above a pH of 9.0. The pH shall be analyzed and recorded at least once a day. **(04/07)**
 - B. The caustic scrubber circulation rate shall be a minimum of 40 gpm for scrubbers A and B, and a minimum of 220 gpm for absorber C. The circulation rate shall be monitored and recorded at least once a day. **(04/07)**
 - C. Records of pH measurements, circulation rate measurements, and all batch purging operations shall be made available to the TCEQ Executive Director or his representative upon request.
 - D. Quality-assured (or valid) data must be generated when waste gas is being directed to the oxidizer. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Incinerator-Scrubber System operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/05)**
12. The Incinerator-Scrubber System identified as Emission Point No. (EPN) 6002A/B/C shall not have a bypass. **(04/07)**
13. The following requirements apply to capture systems for each incinerator/scrubber system designated as EPN 6002A/B/C. **(02/11)**
 - A. If used to control pollutants other than particulate, either:
 - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
 - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. The control device shall not have a bypass.
or
If there is a bypass for the control device, comply with either of the following requirements:

- (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
- (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

- C. If any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.
14. The process control for the vessels listed here shall be designed to interlock feed and steam, if steam is used, so that the vessel internal pressure never exceeds 70 percent of vessel design pressure. The vessels subject to this requirement are: DR-101A, DR 101B, DR-101C, DC 102, DC-103, DC-104, and DC-105. **(12/05)**
 15. Relief valves which might vent directly to the atmosphere shall be designed to relieve at no less than three times the normal operating pressure of the vessel on which they are installed. **(12/05)**
 16. The VOC associated with cooling tower water from cooling towers EDC-CT, 2C-C1, and 2CC2, shall be monitored monthly with an approved air-stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. The appropriate equipment shall be maintained so as to minimize fugitive VOC emissions from the cooling tower. If the strippable VOC in the cooling water exceeds 50 parts per billion by weight, the faulty equipment shall be identified and repaired at the earliest opportunity, but no later than the next scheduled shutdown of the process unit in which the leak occurs. The results of these monitoring and maintenance efforts shall be recorded, and such records shall be maintained for a period of five years. **(04/10)**

Fugitive Emission Monitoring

17. Piping, Valves, Connectors, Pumps, Agitators, and Compressors — 28VHP **(11/12)**

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) Piping and instrumentation diagram (PID);
 - (2) A written or electronic database or electronic file;
 - (3) Color coding;
 - (4) A form of weatherproof identification; or
 - (5) Designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve;
or

- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven

pumps) may be used to satisfy the requirements of this condition and need not be monitored.

- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

- M. With respect to Special Condition 17, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.
18. In lieu of the 2000 ppmv VOC limit in Paragraph H of Special Condition 17, damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(02/11)**
19. Connectors in VOC Service in the Route 200 Area — 28CNTQ

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment: **(12/05)**

- A. In addition to the weekly physical inspection required by Item E of Special Condition No. 17, all accessible connectors in gas/vapor and light liquid service shall be monitored quarterly with an approved gas analyzer in accordance with Items F thru J of Special Condition No. 17.
- B. In lieu of the monitoring frequency specified in Paragraph A, connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.
- Connectors may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.
- If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.
- C. The percent of connectors leaking used in paragraph B shall be determined using the following formula:

$$(Cl + Cs) \times 100 / Ct = Cp$$

Where:

Cl = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.

Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor connectors.

Cp = the percentage of leaking connectors for the monitoring period.

20. Piping, Valves, Pumps, and Compressors in Cl₂ Service

- A. Audio, olfactory, and visual checks for Cl₂ leaks within the operating area shall be made every week.
- B. Immediately (but not later than one hour) upon detection of a leak, plant personnel shall take the following actions:
 - (1) Isolate the leak by removing process fluid from the leaking component or equipment.
 - (2) Commence repair or replacement of the leaking component.
 - (3) If immediate repair is not possible, use a leak collection/containment system to prevent the leak until repair or replacement can be made.
- C. Records shall be maintained at the plant site of all repairs and replacements made. They shall include date and time of leak checks, results, date, and time repairs are commenced, and date and time repairs are completed.

Stack Testing

- 21. Sampling ports and platforms shall be incorporated into the design of the incinerator-scrubber stack according to the specifications set forth in Chapter 2, "Stack Sampling Facilities" of the TCEQ Sampling Procedures Manual. Alternate sampling facility designs may be submitted for approval to the TCEQ Regional Director or the TCEQ Compliance Support Division. **(12/05)**
- 22. Upon request of the TCEQ Executive Director, the holder of this permit shall perform stack sampling and other testing as required to establish the destruction efficiency and actual pattern and quantities of air pollutants being emitted into the atmosphere from each Incinerator-Scrubber Train (EPNs 6002A, 6002B, and 6002C). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods. **(12/05)**

New stack testing shall be conducted in accordance with this permit condition as represented in the permit alteration representations dated March 8, 1999.

- A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Procedure/parameters to be used to determine worst-case emissions during the sampling period.

The purpose of the pretest meeting is to review and formalize the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals must have EPA and TCEQ approval, and requests shall be submitted to the TCEQ Regional Office.

- B. Air contaminants emitted from the incinerator/scrubbers to be tested for include (but are not limited to) VOC, ethylene dichloride (EDC), Cl₂, HCl, nitrogen oxides, and carbon monoxide.
- C. Sampling shall occur within 60 days after initial operation of the incinerator scrubber train and at such times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Initial sampling has been completed for the Incinerator-Scrubber Trains identified as EPNs 6002A, 6002B, and 6002C. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires prior approval, and requests shall be submitted to the TCEQ Regional Office.
- D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.
- E. Three copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(12/05)**

One copy to the TCEQ Corpus Christi Regional Office.

One copy to the EPA, Air Enforcement Branch, Region 6, Dallas.

- F. Sampling shall be performed at least every five years in accordance with A, B, and D of this condition.
23. In the event the TCEQ Corpus Christi Regional Office or the TCEQ Compliance Support Division in Austin determines there are concerns with the recent testing conducted in accordance with Special Condition No. 22 that would affect the permit limits or requirements, then upon written request by the TCEQ, the incinerator operating parameters shall return to those required by the previous permit dated July 21, 1998, until the concerns are resolved. **(06/99)**

Maintenance Practices

24. The concentration of EDC in the equipment vapor space shall be no more than 5 percent of the equipment volume at standard temperature and pressure prior to opening any equipment directly to atmosphere. This condition shall apply to all equipment containing at least 10 percent EDC by weight. Any emissions associated with these activities are not authorized and are subject to Title 30 Texas Administrative Code (30 TAC) § 101.211, Subchapter F. **(03/07)**

Recordkeeping

25. A copy of the most recent test report, which contains the results of the testing conducted in accordance with Special Condition No. 22 shall be maintained on-site with a copy of the permit. **(06/99)**

Contemporaneous Reductions

26. Approval of the permit amendment application, form PI-1 dated January 25, 2005, is conditioned on completion of all emission reduction projects represented on the plot plan of this permit amendment application. The holder of this permit shall implement quarterly monitoring on connectors within the area identified as "Route 200" associated with the Water Wash and Caustic Wash Systems.

These reductions in emissions shall occur not later than the commencement of operation of the modified facilities. The holder of this permit shall maintain records of these emission reductions and provide access and/or copies upon request to the TCEQ Executive Director, his representatives, or any local air pollution control program having jurisdiction. **(12/05)**

Maintenance, Start-Up, and Shutdown Emissions(MSS)

27. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit.

Facilities	Description/ Emissions Activity	EPN
All facilities*	Depressurize and purge to control per Special Condition 30	6002 A/B/C
All facilities*	Degas facilities to atmosphere after control per Special Condition 30	EDC-MAINT
All facilities*	Fill and/or vent to control during startup	6002 A/B/C
Incinerator-Scrubber	Startup	6002 A/B/C
Instruments/analyzers	Maintenance and calibrations	EDC-MAINT
All facilities	Sampling and sight glass cleaning	EDC-MAINT

* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and control devices meeting the requirements of Special Condition 33 and 35. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility. **(11/12)**

28. This permit authorizes the emissions from the facilities identified in Special Condition 27 for the planned MSS activities summarized in the MSS Activity Summaries (Attachments A, B and C) attached to this permit.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the site. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

- A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. The date and time of the MSS activity and its duration;
- E. The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, PI-1 dated January 3, 2008, and consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis. **(11/12)**

- 29. Except for storage tanks, instrumentation/analyzer maintenance and vacuum trucks, process units and facilities shall be depressurized, degassed, and placed back into service in accordance with the following requirements.
 - A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization.
 - B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
 - C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.

- D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.
- E. After degassing in accordance with Special Condition 30.D, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.
 - (1) For MSS activities other than process unit startup, shutdown, or turnaround, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
 - (2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 31. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.
- F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:
 - (1) It is not technically practicable to depressurize or degas, as applicable, into the process.
 - (2) There is not an available connection to a plant control system (flare or incinerator).
 - (3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except as noted in Attachment A, all instances of venting directly to atmosphere per Special Condition 30.F must be documented when occurring as part of any MSS

activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities. **(11/12)**

30. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.
- (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

- (1) The air contaminant concentration measured must be less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3) the concentration measured must be at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000* mole fraction of the total air contaminants present in the gas stream that can be detected by the tube.

The mole fraction of the total air contaminants present in the gas stream that can be detected by the tube may be estimated based on process knowledge.

The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

- (1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.
 - (2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
 - (3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.
- D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:
- (1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.
 - (2) The sample bag shall be connected directly to the sample valve.
 - (3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.
 - (4) The two valves shall then be closed to seal the sample in the bag.
 - (5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.
 - (6) This process is repeated to collect additional samples.
 - (7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). An alternative laboratory method may be approved by the TCEQ Regional Office upon request. The sample shall be analyzed per Section 8.2.1.5 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting. **(11/12)**

31. If the removal of a component for repair or replacement results in an open ended line or valve, the date and line or valve shall be recorded, and the open ended line is exempt from requirement in Special Condition 17 to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- A. A cap, blind flange, plug, or second valve must be installed on the line or valve; or
 - B. The permit holder shall verify that there is no leakage from the open-ended line or valve. The open-ended line or valve shall be monitored on a weekly basis in accordance with Special Condition 17 except that a leak is defined as any VOC reading greater than background. Leaks must be repaired by end of the next calendar day or a cap, blind flange, plug, or second valve must be installed on the line or valve. The results of this weekly check and any corrective actions taken shall be recorded. **(11/12)**
32. This permit authorizes emissions from fixed roof storage tanks. The following requirements apply.
- A. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, controlled degassing shall be completed as follows:
 - (1) Any gas or vapor removed must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the storage tank when degassing to the control device or controlled recovery system.
 - (2) The vapor space shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
 - (3) A volume of purge gas equivalent to twice the volume of the vapor space must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 29.
 - (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
 - (5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.
 - B. The tank shall not be opened or ventilated without control, except as allowed by (1) or (2) below until one of the criteria in part C of this condition is satisfied.
 - (1) Minimize air circulation in the tank vapor space.

- (a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
 - (b) Access points shall be closed when not in use
- (2) Minimize time and VOC partial pressure.
 - (a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in part C.(1) of this condition;
 - (b) Blowers may be used to move air through the tank without emission control at a rate not to exceed 2800 cubic feet per minute for no more than 432 hours. All standing liquid shall be removed from the tank during this period.
 - (c) Records shall be maintained of the blower circulation rate, the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.
- C. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
 - (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
 - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
 - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
 - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
 - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 30.
 - (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

- D. The occurrence of each degassing and the associated emissions shall be recorded and the rolling 12-month tank emissions shall be updated on a monthly basis. These records shall include at least the following information:
- (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
 - (2) the reason for the tank maintenance;
 - (3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - (a) all liquid was pumped from the tank to the extent practical,
 - (b) start and completion of controlled degassing, and total volumetric flow,
 - (c) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
 - (d) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
 - (4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events b and d with the data and methods used to determine it. The emissions associated with fixed roof storage tank activities shall be calculated using the methods described in the permit application. **(11/12)**
33. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:
- A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.
 - B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.
 - C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.
 - (1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

- (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a “duckbill” or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.
 - (3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 30.
 - (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.
- D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis. **(11/12)**
- 34. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**
- 35. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

- (1) The CAS shall consist of two carbon canisters in series with adequate carbon supply for the emission control operation.
- (2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:
 - (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

- (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.
 - (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 30.
 - (4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.
 - (5) Records of CAS monitoring shall include the following:
 - (a) Sample time and date.
 - (b) Monitoring results (ppmv).
 - (c) Canister replacement log.
 - (6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.
- B. The plant Incinerator-Scrubber System (EPN 6002 A/B/C) shall operate as specified in Special Conditions 5 through 13.
- C. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.
- (1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.
 - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 30.
 - (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv

above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. **(11/12)**

36. The following requirements apply to capture systems for the Incinerator-Scrubber System (EPN 6002 A/B/C).
- A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. The control device shall not have a bypass.
 - C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above. **(11/12)**
37. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: May 28, 2013

Permit 19199 and PSDTX1238

Attachment A

Inherently Low Emitting Activities

Activity	Emissions
	VOC
Soap and other aqueous based cleaners	X
Maintenance on water treatment systems	X
Replacement of analyzer filters and screens	X
Cleaning sight glasses	X

Dated: November 30, 2012

Permit 19199 and PSDTX1238

Attachment B

Routine Maintenance Activities

Facilities	Description/Emission Activities	EPN
Reactors	Vent to atmosphere	EDC-MAINT
Columns	Vent to atmosphere	EDC-MAINT
Vessels	Vent to atmosphere	EDC-MAINT
Blowers	Vent to atmosphere	EDC-MAINT
Pumps	Vent to atmosphere	EDC-MAINT
Filter/Strainers	Vent to atmosphere	EDC-MAINT
Heat Exchangers	Vent to atmosphere	EDC-MAINT
Vacuum Trucks	Vent to atmosphere	EDC-MAINT
Maintenance Wastewater	Vent to atmosphere	EDC-MAINT
Scrubbers	Vent to atmosphere	EDC-MAINT
Incinerators	Vent to atmosphere	EDC-MAINT
Piping, Valves and Relief Valves	Vent to atmosphere	EDC-MAINT
Fixed Roof HCl Storage Tanks	Vent to atmosphere	EDC-MAINT

Dated: November 30, 2012

Permit 19199 and PSDTX1238

Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 28.

Plant startup, shutdown, and turnaround

Sludge Cleaning

Fixed Roof VOC Storage Tanks

Activities not listed on Attachments A and B or not otherwise authorized

Date: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Number 19199 and PSDTX1238

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EDCFUG	Process Fugitives (5)	Cl ₂	0.01	0.02
		HCl	0.01	0.01
		VOC	1.47	6.44
6002A/B/C	Three Incinerator/Scrubbers (6)	Cl ₂	0.86	3.78
		CO	2.18	9.54
		CO (7)	9.00	-
		HCl	0.44	1.92
		NO _x	5.69	24.91
		VOC	1.18	5.27
EDC-CT	Cooling Tower	VOC	0.88	3.86
2C-C1	Cooling Tower	VOC	0.88	3.86
2C-C2	Cooling Tower	VOC	0.88	3.86
Maintenance, Startup, and Shutdown (MSS)				
EDC-MAINT	Emissions to Atmosphere	VOC	647.96	12.60
		HCl	19.28	2.30
		Cl ₂	0.37	0.01

Emission Sources - Maximum Allowable Emission Rates

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
Cl₂ - chlorine
CO - carbon monoxide
HCl - hydrogen chloride
NO_x - total oxides of nitrogen
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) This entry represents three separate emissions points. Emissions shown are the maximum allowable rates for the three incinerator/scrubber trains combined.
- (7) Hourly CO emission rate during Startup.

Date: November 30, 2012



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Formosa Plastics Corporation, Texas
Authorizing the Construction and Operation of
Traffic Facility
Located at Point Comfort, Calhoun County, Texas
Latitude 28° 41' 20" Longitude 96° 32' 50"

Permit: 19871 and PSDTX1236

Revision Date : May 28, 2013

Renewal Date: July 16, 2017


For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 19871 and PSDTX1236

Authorized Emissions

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit.

Federal Requirements

2. This facility shall comply with all applicable requirements of the U. S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations Part 60, Subparts A, Kb, and VV (40 CFR Part 60, Subparts A, Kb, and VV) on Standards of Performance for New Stationary Sources promulgated for Volatile Organic Liquid Storage Vessels and Equipment Leaks in the Synthetic Organic Chemicals Manufacturing Industry.
3. This facility shall comply with all applicable requirements of the EPA regulations in 40 CFR Part 61, Subparts A, J, V and BB on National Emission Standards for Hazardous Air Pollutants (NESHAPS) promulgated for Equipment Leaks of Benzene and Equipment Leaks and Organic Liquid Distribution MACT in 40 CFR Part 63 Subpart EEEE. **(8/08)**
4. These facilities shall comply with the applicable requirements of Title 30 Texas Administrative Code §§ 113.110 and 113.130 (30 TAC §§ 113.110 and 113.130), including the referenced requirements contained in 40 CFR Part 63, Subparts A, F, G, H and Y. **(8/08)**

Operating Conditions

5. The flare systems shall operate in accordance with the requirements stated in the paragraphs shown in the table below: **(12/12) (PSD)**

Flare EPN	Flare Name	Required to comply with paragraphs during Normal Operations	Required to comply with paragraphs during Maintenance Operations
8F-DO1	Chandelier Flare	A through C	A through E
8F-DO3	Dock Flare	A through C	No MSS
8F-DO4	Pygas Tank Flare	A through C	A through F
8F-DO5	BTX Tank Flare	A through C	A through F
8F-DO6	Tank Farm Flare	A through E	A through F

- A. The flare systems shall be designed such that the combined assist natural gas and waste gas stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal and maintenance flow conditions.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 2

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per shall be performed 40 CFR § 60.18(f) if requested by the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

- B. The flares shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded.
- C. The flares shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of air assist to the Flare (EPN 8F-Do3).
- D. The permit holder shall install a continuous flow monitor that provides a record of the vent stream flow to the flares. The flow monitor sensor sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be $\pm 5.0\%$

The monitors shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes.

Permit holder shall have nine months from the date of permit issuance to make necessary changes to the Tank Farm Flare (EPN 8F-Do6) flow monitor or to install new meter instrumentation.

- E. The waste gas stream directed to the flares shall be assumed to contain no BTU content and sufficient assist natural gas shall be added so that each flare meets the 40 CFR § 60.18 specifications of minimum heating value.
 - F. Tank Farm Flare (EPN 8F-Do6) shall not be used to control Maintenance emissions when either the Pygas Flare (EPN 8F-Do4) or the BTX Flare (EPN 8F-Do5) is controlling waste gas from Maintenance activities.
6. The requirements of SC 5.A through 5.C shall apply to the indicated flares during the following conditions. **(12/12)**

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 3

- A. Dock Flare (EPN 8F-Do3): When loading emissions are routed to the Dock Flare.
 - B. Chandelier Flare (EPN 8F-Do1): When the pressure tank's relief valve open and gases are relieved to the Chandelier Flare.
 - C. Tank flares (EPNs 8F-Do4, 8F-Do5 and 8F-Do6): During tank filling and when the vapor space heats up resulting in breathing losses.
- 7. This permit authorizes the operation of diesel engine-driven Diesel Fire Water Pumps (8FP-20A and 8FP-20B) for no more than 26 hours per year each. The sulfur content of diesel fuel burned in these engines shall be no greater than 0.5 weight percent. Records of hours of operation and documentation demonstrating compliance with the sulfur content limitation shall be kept. **(12/02)**
 - 8. Displaced vapors from marine loading of ethylene dichloride (EDC) shall be routed to the Dock Incinerator/Scrubber (EPN 8F-Do2), which shall operate with a destruction/removal efficiency of no less than 99.99 percent for carbon compounds. **(12/02) (PSD)**
 - 9. Displaced vapors from marine loading of Naphtha, BTX, Pygas, Wash Oil and Flux Oil shall be routed to either the Dock Flare (EPN 8F-Do3) or the vapor combustor (EPN 8F-DO7). Emissions from loading vessels with materials where the volatile organic compounds (VOC) has an aggregate partial pressure of greater than 0.50 pound per square inch, absolute (psia) at the maximum feed temperature or 95°F, whichever is greater, shall be collected and routed to a control device which provides at least 98 percent control. **(12/12)**
 - 10. Before loading a marine vessel with a VOC which has a vapor pressure equal to or greater than 0.5 psia under actual storage conditions, the owner or operator of the marine terminal shall verify that the marine vessel has passed an annual vapor-tightness test as specified in 40 CFR § 63.565(c) (September 19, 1995) or 40 CFR § 61.304(f) (October 17, 2000) or 40 CFR § 63.563(a) (September 19, 1995). **(7/07)**
 - 11. Displaced EDC vapors from filling EDC storage tanks at the Marine Traffic facility shall be routed to the Incinerator-Scrubber Trains (EPNs 6002A, 6002B, and 6002C) at the main plant which are authorized by Permit Number 19199. **(12/02)**
 - 12. The vapor combustor (EPN 8F-Do7) shall achieve 99% control of the Naphtha, BTX, Flux Oil, Pygas, and Wash Oil directed to it. This shall be ensured by maintaining the temperature in, or immediately downstream of, the combustion chamber, while waste gas vapors are being routed to the vapor combustor as established by the vapor combustor interlock system design, above 1400 degrees Fahrenheit prior to the initial stack test performed in accordance with Special Condition 32. Following the completion of that stack test, the six minute average temperature shall be maintained, while waste

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 4

gas vapors are being routed to the vapor combustor as established by the vapor combustor interlock system design, above the minimum one hour average temperature maintained during the last satisfactory stack test

The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency while waste gas vapors are being routed to the vapor combustor as established by the vapor combustor interlock system design. The temperature monitor shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ± 2 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

Quality assured (or valid) data must be generated when the VCU is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the VCU operated while waste gas vapors are being routed to the vapor combustor as established by the vapor combustor interlock system design over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded. **(12/12)**

Storage and Loading of VOC (7/07)

13. Storage tanks are subject to the following requirements. The control requirements specified in paragraphs A-D of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.
 - A. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.
 - B. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted.

A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 5

- C. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in 40 CFR § 60.113b, Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989), to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.
- D. The floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute (API) Code 650 dated November 1, 1998, except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
- E. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- F. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12-month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions for tanks shall be calculated using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

- G. The following tanks are exempt from control requirements as stated in paragraphs A-D of this condition and are authorized to store the following liquids: **(11/12)**

Location	Tank EPN	Tank Name	Service
Marine Traffic	8DF-20A	Diesel Storage Tank	Diesel
Marine Traffic	8DF-20B	Diesel Storage Tank	Diesel
Marine Traffic	8FT-Do1	Naphtha Tank	Naphtha
Marine Traffic	8FT-Do3	Naphtha Tank	Naphtha

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 6

Location	Tank EPN	Tank Name	Service
Marine Traffic	8FT-Do2	Wash Oil Tank	Wash Oil
Marine Traffic	8FT-Do9A	MEG Tank	MEG*
Marine Traffic	8FT-Do9B	MEG Tank	MEG*
Marine Traffic	8FT-D13	Flux Oil Tank	Flux Oil
Marine Traffic	8FT-D14	DEG Storage Tank	DEG**
Inland Traffic	8GT-809B	TEG Storage Tank	TEG***
Inland Traffic	8GT-811	DEG Storage Tank	DEG**

* Monoethylene Glycol
 ** Diethylene Glycol
 *** Triethylene Glycol

14. The marine loading vapor recovery system shall maintain an operating pressure consistent with the Coast Guard Regulations, Subpart E - Vapor Control Systems. Compliance shall be demonstrated through appropriate testing as directed by the Executive Director of the TCEQ and other agencies having jurisdiction.
15. Diethylene glycol (DEG), monoethylene glycol (MEG), and pyrolysis fuel oil may be loaded into marine vessels without controls. **(4/00)**
16. If the control equipment, represented in the permit application or required by these conditions, is non-operational or operating at efficiencies less than those represented in the permit application, loading operations shall be discontinued immediately until such time as the equipment is repaired.
17. Supplemental fuel for the incinerator and all flares shall be sweet natural gas containing less than 2,600 grains per million standard cubic feet, of total sulfur compounds. Records demonstrating compliance with the sulfur content limitation shall be kept. **(7/07)**
18. No more than two barges may be loaded at any one time of compounds requiring control to the dock flare.
19. Products are imported (unloaded from marine vessels at the docks into shore tanks), and the VOC emissions generated by these operations that require control are reflected in the flare and incinerator maximum allowable emission rates. The VOC emissions generated by these operations that do not require control are reflected in the respective

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 7

tank maximum allowable emission rates. The following products may be imported: naphtha, BTX, pygas, wash oil, flux oil, ethylene glycol, diethylene glycol, EDC, and caustic. **(7/07)**

20. The short term rates at which products and raw materials may be loaded onto marine vessels are limited to the following in gallons per minute: **(12/12)**

Material	Ship Load Rate (gpm)	Barge Load Rate (gpm) per Barge
EDC	5,400	2,200
MEG	5,400	2,200
DEG	5,400	2,200
BTX	5,400	2,200
Pyrolysis Fuel Oil	NA - Barge Loading Only	2,200
Pyrolysis Gasoline	NA - Barge Loading Only	2,200
Wash Oil	NA - Barge Loading Only	2,200
Flux Oil	NA - Barge Loading Only	2,200
Naphtha	5,400	2,200

Note: 50 percent caustic may be loaded into ships, ocean-going barges, and barges with no loading rate limits. **(PSD)**

21. All lines and connectors shall be visually inspected for any defects prior to hookup. Lines and connectors that are visibly damaged shall be removed from service. Operations shall cease immediately upon detection of any liquid leaking from the lines or connections. **(12/12)**
22. If at any time more than one barge is to be loaded with Naphtha, BTX, Pyrolysis Gasoline, Wash Oil, or Flux Oil, the vacuum system must be operated. **(12/12)**
23. When loading EDC onto barges, while waste gas vapors are being routed to the incinerator/scrubber system as established by the incinerator/scrubber interlock system design, the EDC marine loading vapor collection system shall be operated such that the vacuum maintained within the collection system during EDC loading is no less than 1.5 inches of water, and that the barge being loaded is also under a vacuum. The collection system vacuum shall be continuously monitored and recorded and the records made available to the TCEQ upon request. **(12/12)**
24. The holder of this permit shall develop and implement a periodic preventative maintenance and training program for shift supervisors and operators which addresses the need to control, maintain records of, and report excess air emissions. The selected program shall be approved by the TCEQ Regional Office Director prior to

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 8

implementation. In addition, specific written procedures regarding operation of the marine loading facility shall be posted in appropriate work areas.

25. All storage vessels shall be equipped with level indicators and alarm systems to prevent overfilling. The level indicating device shall be set in such a manner so as to allow the operator the necessary time to cease filling operations.
26. The following requirements apply to capture (close vent) systems for Dock Flare (EPN 8F-Do3) and the Dock Incinerator/Scrubber (EPN 8F-Do2). **(7/07)**
 - A. If used to control pollutants other than particulate, either:
 - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system;
 - or
 - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. The control device shall not have a bypass.
or
If there is a bypass for the control device, comply with either of the following requirements:
 - (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
 - (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.
 - C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 9

27. The Dock Incinerator/Scrubber (EPN 8F-Do2) shall operate with no less than 99.99 percent efficiency in disposing of the carbon compounds captured by the collection system. The firebox exit temperature of the incinerator/scrubber shall be continuously monitored and recorded while EDC is being loaded into ships or barges. The six-minute average incinerator firebox exit temperature shall be maintained above 1900°F or the temperature maintained during the last satisfactory stack testing, while waste gas is being fed into the incinerator as established by the incinerator/scrubber interlock system design. The minimum temperature shall be at least that maintained during the stack testing required in the conditions of this permit. Records shall be kept demonstrating compliance with this condition.

The incinerator/scrubber firebox exit temperature shall be continuously monitored and recorded when waste gas is directed to the incinerator/scrubber system as established by the incinerator/scrubber interlock system design. The temperature measurement device shall reduce the temperature readings to an averaging period of six minutes or less and record it at that frequency.

The temperature measurement device shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of 0.75 percent of the temperature being measured expressed in degrees Celsius or 2.5°C or in degrees Fahrenheit or 4.5°F.

Quality-assured (or valid) data must be generated when the incinerator/scrubber is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the incinerator/scrubber operated over the previous rolling 12-month period, while waste gas is being fed into the incinerator as established by the incinerator/scrubber interlock system design. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/12) (PSD)**

28. While waste gas is being fed to the dock incinerator/scrubber system, as established by the incinerator/scrubber interlock system design, the pH of the incinerator scrubbing solutions and the solution flow rates shall be maintained at levels not less than those maintained during the most recent satisfactory stack testing. The solution pH shall be continuously analyzed and recorded at least once every six minutes together with a comparable record of the hours of operation of the incinerator/scrubber. The pH monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. The pH monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least every two weeks, whichever is more frequent, and shall be accurate to within +0.5 pH unit.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 10

The liquid flow rate shall be continuously monitored and be maintained at levels greater than in the last satisfactory stack test performed in accordance with Special Condition No. 31, while waste gas is being fed into the incinerator as established by the incinerator/scrubber interlock system design. The flow monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least annually, whichever is more frequent, and shall be accurate to within 2 percent of span or 5 percent of the design value.

Quality-assured (or valid) data must be generated when the incinerator/scrubber is operating. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the incinerator/scrubber operated over the previous rolling 12-month period, while waste gas is being fed into the incinerator as established by the incinerator/scrubber interlock system design. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(12/12)**

Fugitive Emission Monitoring

29. Piping, Valves, Connectors, Pumps, Agitators, and Compressors - 28VHP (11/12)

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. The requirements of paragraphs F and G shall not apply (1) where the Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) Piping and instrumentation diagram (PID);
- (2) A written or electronic database or electronic file;
- (3) Color coding;
- (4) A form of weatherproof identification; or
- (5) Designation of exempted process unit boundaries.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 11

- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in Subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 12

- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 13

- prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 14

that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

- K. Alternative monitoring frequency schedules of 30 TAC " 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
 - L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
 - M. With respect to SC 29, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety issue including, but not limited to, close proximity of other process pipelines and equipment or unsafe access to the piping.
30. In lieu of the 2000 ppmv VOC limit in of Special Condition 29.H, damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. **(02/11)**

Stack Sampling

31. The holder of this permit may be required to perform additional stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Dock Incinerator/Scrubber (EPN 8F-Do2). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. **(12/12)**
- A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 15

The notice shall include:

- (1) Proposed date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA Sampling Procedures.
- (7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or the EPA Sampling Procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Austin Office of Permitting and Registration, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Regional Director.

- B. Air contaminants emitted from the incinerator scrubber system to be tested for include (but are not limited to) chlorine, hydrogen chloride, EDC, nitrogen dioxide, sulfur dioxide, volatile organic compounds, particulate matter and carbon monoxide.
- C. Sampling shall occur at such times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires the EPA approval, and requests shall be submitted to the TCEQ Regional Director.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 16

- D. The marine facility shall operate at maximum loading rates during stack emission testing. Primary operating parameters that enable determination of loading rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the marine facility is unable to operate at maximum rates during testing, then future loading rates may be limited to the rates established during testing as provided below.

During subsequent operations, if the barge loading rate (gpm) for an individual barge is greater than 110% of that recorded during the test period or the loading rates in Special Condition 20; stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.

- E. Three copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual.

The reports shall be distributed as follows:

One copy to the TCEQ Corpus Christi Regional Office.

One copy to each local air pollution control program. **(12/08)**

32. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the EPN 8F-DO7, Dock Vapor Combustor/Barge and Ship Loading, to demonstrate compliance with the MAERT and Special Condition 12. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods. **(12/12)**

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
- (1) Proposed date for pretest meeting.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 17

- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
- (7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants emitted from the EPN 8F-Do7, Dock Vapor Combustor/Barge and Ship Loading, to be tested for include (but are not limited to) VOC.
- C. Sampling shall occur within 60 days after achieving the maximum operating rate from the barge dock, but no later than 180 days after initial start-up of the new barge loading facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.
- D. The facility being sampled shall operate at maximum loading rate from the barge dock during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the barge loading rate (gpm) for an individual barge is greater than 110% of that recorded during the test period or the loading rates in Special Condition 20; stack sampling shall be performed at the new

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 18

operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.

Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.

One copy to each local air pollution control program.

33. Sampling ports and platform(s) shall be incorporated into the design of EPN 8F-DO7, Dock Vapor Combustor/Barge and Ship Loading, according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director. **(12/12)**

Maintenance Practices

34. The concentration of EDC in the equipment vapor space shall be no more than 5 percent of the equipment volume at standard temperature and pressure prior to opening any equipment directly to atmosphere. This condition shall apply to all equipment larger than 1,250 gallons containing at least 10 percent EDC by weight and is effective on August 30, 1997.

Recordkeeping

35. Records of materials loaded onto marine vessels and barges shall be kept and maintained. The records shall include the amount of material loaded per loading operation (in gallons) and duration of the loading period (in hours). If two or more barges are loaded with the same material, but in the same loading operation, one record of total volume loaded and total loading time will suffice for the entire loading operation. These records shall be used to demonstrate compliance with the allowable rates and shall be made available to TCEQ representatives upon request. **(7/07)**
36. Upon installation of Tank Farm Flare (EPN 8F-DO6), the permit holder shall submit an alteration request to update the current marine traffic special conditions and maximum allowable rate table (MAERT) to reflect the current operations. The alteration will include (but is not limited to) deletion of two Storage Tanks (EPNs 8FT-D13 and 8FT-DO2); and removal from the MAERT of the BTX Tank Flare (EPN 8F-DO5) and

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 19

Pygas Tank Flare (EPN 8F-Do4), when the associated tank vents have been redirected to the new Flare (EPN 8F-Do6). **(5/09)**

Maintenance, Startup, and Shutdown (MSS)

37. This permit authorizes air emissions from the planned maintenance, startup, and shutdown (MSS) activities identified in the following table performed at the facilities authorized by this permit.

Facilities	Description/ Emissions Activity	EPN
All facilities*	Depressurize, purge and degas to control per Special Condition 39	8F-Do1, MTRAFF-TMP or ITRAFF-TMP
All facilities*	Open facilities to atmosphere after degassing per Special Condition 39.	MTRAFF-MNT, or ITRAFF-MNT.
All facilities*	Drain liquid to remove water	MTRAFF-MNT.
Vacuum trucks	Load and transport liquid to support MSS on permanent facilities	MTRAFF-TMP, or ITRAFF-TMP.
Tanks	Degas per Special Condition 42& 43. Tank inspection and seal repairs. Refilling tanks after cleaning	8F-Do1, 8F-Do4, 8F-Do5, or MTRAFF-TMP.
Frac tanks	Use of frac tanks	MTRAFF-TMP, or ITRAFF-TMP.
Tanks (pressure)	Maintenance venting	8F-Do1
Flares	Maintenance on flares	8F-Do4, 8F-Do5, MTRAFF-MNT, or ITRAFF-MNT.
Air conveying systems	Open to atmosphere	MTRAFF-MNT
All inherently low emitting activities	All inherently low emitting activities	MTRAFF-MNT, or ITRAFF-MNT.

* - all facilities include piping

In addition, planned MSS emissions emitted from routine emission points are authorized provided the emissions are compliant with the respective MAERT allowable emission rates and special conditions. This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: vacuum trucks and associated control devices meeting the requirements of Special Condition 40. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent facilities authorized by this permit, and (c) does not operate as a replacement for an existing authorized facility. **(11/12)**

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 20

38. This permit authorizes the emissions from the facilities identified in Special Condition 37 for the planned MSS activities summarized in the MSS Activity Summaries (Attachments A, B and C) attached to this permit.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the site. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity identified in Attachment C and the emissions associated with it shall be recorded and include at least the following information:

- A. The process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. The type of planned MSS activity and the reason for the planned activity;
- C. The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. The date and time of the MSS activity and its duration;
- E. The estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, PI-1 dated January 3, 2008, and consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis. **(11/12)**

39. Process units and facilities, with the exception of those identified in Special Conditions 42 and 43 and Attachment A shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.
- A. The process equipment shall be vented to a control device or a controlled recovery system during depressurization unless otherwise allowed by another special condition.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 21

- B. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment or commencing depressurization, degassing and/or maintenance. Equipment that only contains material with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to the atmosphere after liquids are removed as required by this condition. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
- C. If mixed phase materials must be removed from process equipment during depressurization, liquids removal, or degassing, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. Any vents in the knockout drum or equivalent must be routed to a control device or a controlled recovery system. Control must remain in place while mixed phase material removal is being performed.
- D. Facilities shall be degassed using practices that ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. Records shall be maintained of the control device or recovery system utilized with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.
- E. After degassing in accordance with Paragraphs D of this special condition, the VOC concentration in the facilities being degassed shall be verified to be below 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL) using one of the methods below prior to opening directly to atmosphere.
 - (1) For MSS activities other than process unit startup, shutdown, hydroblasting, or turnaround, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
 - (2) Documentation shall be maintained of the locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the purge gases. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable-VOC concentration prior to

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 22

uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 40. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or less than 10 percent of the lower explosive limit (LEL). Documented plant procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

- F. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:
- (1) It is not technically practicable to depressurize or degas, as applicable, into the process.
 - (2) There is not an available connection to a plant control system (flare or incinerator).
 - (3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except for Attachment A activities, all instances of venting directly to atmosphere per Paragraph F of this special condition must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the activity record for those planned MSS activities. **(11/12)**

40. Air contaminant concentration shall be measured using an instrument/detector meeting one of the following methods:
- A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:
- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 23

- (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

- (1) The air contaminant concentration measured must be less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured must be at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000* mole fraction of the total air contaminants present in the gas stream that can be detected by the tube.

The mole fraction of the total air contaminants present in the gas stream that can be detected by the tube may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector. **(5/13)**

- (1) The detector shall be calibrated monthly with a certified propane gas standard at 50% of the lower explosive limit (LEL) for propane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 24

- (2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
 - (3) A certified methane gas standard equivalent to 50% of the LEL for propane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for propane.
- D. As an alternative to an instrument/detector, the analysis may be conducted in a laboratory. Bag samples of the gas discharged may be drawn and taken to a Formosa laboratory to be analyzed by gas chromatography (GC). A minimum of two bag samples shall be drawn approximately ten minutes apart. A Tedlar bag, or a bag appropriate for the material to be sampled, shall be used and shall have a valve to seal gas in the bag. The samples shall be drawn as follows:
- (1) The sample point on the equipment being cleared shall be purged sufficiently to ensure a representative sample at the sample valve.
 - (2) The sample bag shall be connected directly to the sample valve.
 - (3) The sample valve and sample bag shall be opened to allow the bag to fill to approximately 80% of capacity. The sample connections shall be fitted such that no air is drawn into the sample bag.
 - (4) The two valves shall then be closed to seal the sample in the bag.
 - (5) The sample bag shall then be disconnected and placed in a dark container out of direct sunlight for transport to the analyzer.
 - (6) This process is repeated to collect additional samples.
 - (7) The sample shall be analyzed within 12 hours of collection.

The laboratory GC shall meet or exceed the requirements of 40 CFR 60, Appendix A, Method 18 Sections 6 (Equipment and Supplies), 7 (Reagents and Standards), 9 (Quality Control), and 10 (Calibration and Standards). The sample shall be analyzed per Section 8.2.1.1.2 of Method 18, except the analysis does not need to be performed in triplicate. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting. **(11/12)**

41. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 25

- A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.
 - B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.
 - C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.
 - (1) Prior to initial use, identify any liquid in the truck and the truck identifier (bill of lading or other unique identifier). Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.
 - (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a “duckbill” or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.
 - (3) If the vacuum truck pump exhaust is controlled with a control device other than an engine or oxidizer, records shall be maintained of VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition 40.
 - (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.
 - D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis. **(11/12)**
42. This permit authorizes emissions for storage tanks during planned floating roof landings. Tank roofs may only be landed for changes of tank service or tank

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 26

inspection/maintenance as identified in the permit application. Emissions from change of service tank landings, for which the tank is not cleaned and degassed, shall not exceed 10 tons of VOC in any rolling 12 month period. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings.

- A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control or a controlled recovery system during this process.
- B. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC partial pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:
 - (1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.
 - (2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
 - (3) A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 27

to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 40.

- (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
 - (5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.
- C. The tank shall not be opened or ventilated without control, except as allowed by (1) or (2) below until one of the criteria in part D of this condition is satisfied.
 - (1) Minimize air circulation in the tank vapor space.
 - (a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
 - (b) Access points shall be closed when not in use
 - (2) Minimize time and VOC partial pressure.
 - (a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in part D.(1) of this condition;
 - (b) Records shall be maintained of the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.
- D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 28

- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
- (2) If water or enzyme solution is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
 - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
 - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
 - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 40.
- (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

- E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exceptions:
- (1) Only one tank with a landed floating roof can be filled at any time.
 - (2) The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.
- F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 29

on a monthly basis. These records shall include at least the following information:

- (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
- (2) the reason for the tank roof landing;
- (3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - (a) the roof was initially landed,
 - (b) all liquid was pumped from the tank to the extent practical,
 - (c) start and completion of controlled degassing, and total volumetric flow,
 - (d) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
 - (e) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
 - (f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and
 - (g) tank roof off supporting legs, floating on liquid;
- (4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and g with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.
(11/12)

43. The following requirements apply to fixed roof tanks:

- A. The tank shall not be opened or ventilated without control, except as allowed by (1) or (2) below until one of the criteria in part B of this condition is satisfied.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 30

- (1) Minimize air circulation in the tank vapor space.
 - (a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
 - (b) Access points shall be closed when not in use
 - (2) Minimize time and VOC partial pressure.
 - (a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in part B.(1) of this condition;
 - (b) Records shall be maintained for the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.
- B. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
 - (2) If water or enzyme solution is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
 - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
 - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 31

(c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 40.

(3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

C. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of the following.

If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space must begin within 24 hours after the tank has been drained unless the vapor is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Fixed roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC partial pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space shall be completed as follows:

- (1) Any gas or vapor removed from the vapor space must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space when degassing to the control device or controlled recovery system.
- (2) The vapor space shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
- (3) A volume of purge gas equivalent to twice the volume of the tank must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 40.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 32

- (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
- D. The occurrence of each tank degassing and the associated emissions shall be recorded and the rolling 12-month tank degassing emissions shall be updated on a monthly basis. These records shall include at least the following information:
 - (1) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - (a) start and completion of controlled degassing, and total volumetric flow,
 - (b) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
 - (c) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
 - (2) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events a and c with the data and methods used to determine it. The emissions associated with tank degassing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application. **(11/12)**
- 44. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(11/12)**
- 45. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 33

Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

- (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.
- (2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:
 - (a) It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.
 - (b) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.
- (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 40.A, 40.B or 40.D.
- (4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.
- (5) Records of CAS monitoring shall include the following:

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 34

- (a) Sample time and date.
 - (b) Monitoring results (ppmv).
 - (c) Canister replacement log.
- (6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.
- B. The plant flare system (EPNs 8F-Do1, 8F-Do4 8F-Do5, and 8FD-o6) shall operate in accordance with Special Condition No. 5.
- C. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.
 - (1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.
 - (2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 40.A.
 - (3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.
- D. Thermal Oxidizer.
 - (1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.
 - (2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 35

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

46. The following requirements apply to capture systems for the flares (EPNs 8F-Do1, 8F-Do4, 8F-Do5, and 8FD-o6).
- A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
- B. The control device shall not have a bypass.
- or
- If there is a bypass for the flare, comply with either of the following requirements:
- (1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
- (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals that prevent flow out the bypass.
- These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit.
- C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above.
- (11/12)**

SPECIAL CONDITIONS

Permit No. 19871 and PSDTX1236

Page 36

48. With the exception of the MAERT emission limits, the MSS permit conditions become effective 180 days after this permit amendment, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. **(11/12)**

Dated: May 28, 2013

Permit Numbers 19871 and PSDTX1236
Attachment A
Inherently Low Emitting Activities

Activity	Emissions			
	VOC	NO _x	CO	PM
Sight glass cleaning	X			
Liquid/Gas Sampling (Closed Container)	X			
Liquid Sampling (Open Container)	X			
Water Draining	X			

Dated: November 30, 2012

Permit Numbers 19871 and PSDTX1236

Attachment B

Routine Maintenance Activities

Facilities	Description/Emission Activities	EPN
Piping degassing / repair/ replacement in gas service or short runs of liquid service in Inland Traffic	Vent to atmosphere	ITRAFF- MNT
Replacement/repair of small equipment components in gas or liquid service in Inland Traffic	Vent to atmosphere	ITRAFF- MNT
Replacement/repair of small equipment components in liquid or gas service in Marine Traffic	Vent to atmosphere	MTRAFF-MNT
Replacement/repair of small equipment components in pressurized gas service in Marine Traffic	Vent to atmosphere	MTRAFF-MNT
Replacement/repair of small equipment components in evaporating liquid service in Marine Traffic	Vent to atmosphere	MTRAFF-MNT
Vacuum trucks	Vent to atmosphere	MTRAFF-MNT, ITRAFF-MNT.
Opening Air Conveying Systems	Vent to atmosphere	MTRAFF-MNT

Dated: November 30, 2012

Permit Numbers 19871 and PSDTX1236
Attachment C

Significant MSS Activity Summary

The following activities are subject to the full recordkeeping requirements specified by Special Condition 38.

Piping degassing/repair/replacement of long runs of liquid service piping in Inland Traffic

Piping degassing/repair/replacement of long runs of gas service piping in Marine Traffic

Fixed roof tank cleaning, venting, inspection, and maintenance

Floating roof tank landing, degassing, cleaning, refill, inspection, gasket and seal repairs

Use of frac tanks

Clingage in Marine Traffic

Clingage in Inland Traffic

Pressure tank maintenance venting

Activities not listed on Attachments A and B or not otherwise authorized

Dated: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Number 19871 and PSDTX1236

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
8DF-20A	Diesel Storage Tank	VOC	0.10	0.01
8DF-20B	Diesel Storage Tank	VOC	0.10	0.01
8FP-D20A	Diesel Fire Water Pump	NOx	14.88	0.38
		CO	3.22	0.08
		VOC	1.19	0.04
		PM	1.06	0.04
		SO2	1.68	0.06
8FP-D20B	Diesel Fire Water Pump	NOx	14.88	0.38
		CO	3.22	0.08
		VOC	1.19	0.04
		PM	1.06	0.04
		SO2	1.68	0.06
8FT-Do1	Naphtha Tank	VOC	11.07	23.21
8FT-Do3	Naphtha Tank	VOC	6.79	14.11
8FT-Do9A	Monoethylene Glycol (MEG) Tank	VOC	0.35	0.27
8FT-Do9B	MEG Tank	VOC	0.35	0.27
8FT-D14	Diethylene Glycol Storage Tank	VOC	0.01	0.02
1018	Olefins 1 Elevated Flare – Inland Traffic Contribution from Railcar Loading arm	VOC	0.11	0.06
		NO _x	0.03	0.13
		CO	0.02	0.11

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		SO ₂	0.01	0.01
8F-Do1	Chandelier Flare	NO _x	0.15	0.01
		NO _x MSS	10.20	0.50
		CO	0.30	0.01
		CO MSS	20.40	1.02
		SO ₂	0.01	0.01
		SO ₂ MSS	0.01	0.01
		VOC MSS	62.9	3.09
8F-Do2	Dock Incinerator/Scrubber/ Ship and Barge Loading	EDC	0.04	0.02
		NO _x	3.30	14.45
		CO	0.14	0.61
		PM	1.10	4.80
		SO ₂	0.03	0.15
		HCl	0.42	1.84
		Cl ₂	0.41	1.80
		VOC	0.40	1.75
8F-Do3	Dock Flare/Barge Loading (8)	VOC	22.42	15.97
		NO _x	2.47	1.69
		CO	21.12	14.15
		SO ₂	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
8F-Do4	FT-D18 Flare	VOC	0.02	0.03
		VOC MSS	15.00	0.06
		NO _x	1.10	4.82
		NO _x MSS	2.00	0.16
		CO	1.50	6.57
		CO MSS	3.90	0.31
		SO ₂	0.01	0.02
		SO ₂ MSS	0.01	0.31
8F-Do5	BTX Tank Flare	CO	1.77	7.75
		CO MSS	3.90	0.39
		NO _x	0.88	3.85
		NO _x MSS	1.08	0.28
		SO ₂	0.01	0.02
		SO ₂ MSS	0.01	0.01
		VOC	0.02	0.02
		VOC MSS	15.00	0.04
8F-Do6	Tank Farm Flare (7)	VOC	0.16	0.15
		VOC MSS	1.10	0.02
		NO _x	2.01	8.73
		NO _x MSS	0.10	0.003
		CO	4.01	17.43
		CO MSS	0.30	0.01
		SO ₂	0.01	0.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		SO ₂ MSS	0.01	0.01
8F-Do7	Dock Vapor Combustor/Barge and Ship Loading (8)	VOC	11.21	8.04
		NO _x	2.02	3.06
		CO	17.24	25.88
		PM/PM ₁₀ /PM _{2.5}	0.23	0.35
		SO ₂	0.01	0.01
8F-Do3/8F-Do7	Flare/Vapor Combustor Cap (8)	VOC		15.97
		NO _x		3.06
		CO		25.88
		PM/PM ₁₀ /PM _{2.5}		0.35
		SO ₂		0.01
8FT-901S1	Caustic Tank	NaOH	0.01	0.01
8FT-901S2	Caustic Tank	NaOH	0.01	0.01
8FT-902	Caustic Tank	NaOH	0.01	0.01
8FT-911S1	Caustic Tank	NaOH	0.01	0.01
8FT-911S2	Caustic Tank	NaOH	0.01	0.01
8FT-911S3	Caustic Tank	NaOH	0.01	0.01
8FT-911S4	Caustic Tank	NaOH	0.01	0.01
8FT-Do7A	Caustic Tank	NaOH	0.01	0.01
8FT-Do7B	Caustic Tank	NaOH	0.01	0.01
8F-EG	MEG and DEG Loading (6)	VOC	0.92	0.56
PFO-Lo1	Uncollected Pyrolysis Fuel Oil Loading Losses	VOC	21.84	0.27
PF-Lo2	Inland Traffic Uncollected EG Loading Losses	VOC	0.31	0.13

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
8FDFUGDOCK	Dock Piping Process Fugitives (5)	VOC	0.43	1.82
8FDFUGINLD	Inland Traffic Process Fugitives (5)	VOC	0.24	1.05
8FD-FUGTK	Tank Farm Process Fugitives (5)	VOC	0.90	3.95
8GT-809B	TEG Storage Tank	VOC	0.01	0.01
8GT-811	DEG Storage Tank	VOC	0.01	0.01
TRFDSLUG	Traffic Facility Fire Water System Fugitives (5)	VOC	0.03	0.11
PF-BARGFUG	Barge Process Loading Fugitives (5)	VOC	56.06	0.80
PF-SHIPFUG	Ship Process Loading Fugitives (5)	VOC	55.04	14.04
IBLFUG	Railcar Piping Process Fugitives	VOC	0.83	3.64
Maintenance, Startup, and Shutdown (MSS)				
ITRAFF-MNT	Inland Traffic MSS to Atmosphere	VOC	760.31	7.61
		CO	2.01	0.09
		NO _x	1.01	0.04
		SO ₂	0.01	0.01
MTRAFF-MNT	Marine Traffic MSS to Atmosphere	VOC	469.00	5.19
		CO	3.00	0.14
		NO _x	1.50	0.09
		SO ₂	0.01	0.01
		PM/PM ₁₀ /PM _{2.5}	0.07	0.01

Emission Sources - Maximum Allowable Emission Rates

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1, other than EDC.
NO_x - total oxides of nitrogen
CO - carbon monoxide
PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
SO₂ - sulfur dioxide
EDC - ethylene dichloride
HCl - hydrogen chloride
Cl₂ - chlorine
NaOH - sodium hydroxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Includes losses from MEG ship and barge loading and DEG barge loading.
- (7) These emissions are to commence upon installation and completion of Flare (EPN 8f-Do6).
- (8) The sum of the annual contributions for EPNs 8F-Do3 and 8F-Do7 cannot exceed the cap established by EPN 8F-Do3/8F-Do7, Flare/Vapor Combustor Cap.

Date: December 11, 2012



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Formosa Plastics Corporation Texas
Authorizing the Construction and Operation of
Sitewide MSS Activities
Located at **Point Comfort, Calhoun County, Texas**
Latitude 28° 41' 00" Longitude 096° 32' 30"

Permit: 83763 and PSDTX1230

Issuance Date : November 30, 2012

Renewal Date: November 30, 2022

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

SPECIAL CONDITIONS

Permit Numbers 83763 and PSDTX1230

1. This permit authorizes emissions from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on the MAERT and other requirements specified in the special conditions.
2. This permit authorizes all site wide maintenance activities including bulk painting and abrasive blasting of equipment and structures, the spot use of aerosols, solvents and solvent products, lubricating and cleaning agents applied throughout the site and in the maintenance shops, the cold solvent degreaser operations and the Inherently Low Emitting Activities at the site identified in Attachment A.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

The permit holder shall maintain records of the information below for the site wide maintenance products at the site. The following documentation is required for each product:

- A. Chemical name(s), composition, and chemical abstract registry number if available.
 - B. Material Safety Data Sheet.
 - C. Maximum concentration of the chemical(s) in the product in weight percent
 - D. Maintenance product usage and the associated emissions shall be recorded each calendar quarter, with the rolling 12 month total emissions updated each quarter. Records must be available within 30 days of the end of each quarter.
3. Chemical constituents of new and reformulated site wide maintenance products are authorized as follows:
 - A. Chemical constituents previously authorized for site wide maintenance use remain authorized provided that the annual allowed usage rates do not exceed the amounts documented in the site wide maintenance, startup and

SPECIAL CONDITIONS

Permit Numbers 83763 and PSDTX1230

Page 2

shutdown (MSS) permit application and the emissions do not exceed the allowable emission rates on the MAERT.

- B. Chemical constituents which are emitted and are subject to effects evaluation review and which were not previously authorized for site wide maintenance use may be authorized through the following procedure:
 - (1) The Effects Screening Level (ESL) for each new chemical constituent shall be obtained from the latest on-line edition of the TCEQ's ESL List. For chemicals not included in the ESL List, ESLs may be obtained directly from the TCEQ's Toxicology Division.
 - (2) Short-term [pounds per hour (lb/hr)] and annual [tons per year (TPY)] emissions and corresponding ground level toxicological impacts shall be estimated for all new chemical constituents in the maintenance product using the ESL impacts analysis procedure documented in the site wide maintenance, startup and shutdown (MSS) permit application.
 - (3) The new maintenance product chemical constituent is authorized for use in the amount shown by the ESL impacts analysis to not exceed two times their ESL and the emissions do not exceed the allowable emission rates on the MAERT.
 - C. The constituents of manually applied lubricants, pastes, resins, polymers and adhesives with vapor pressures below 0.002 psia at the application temperature with no expected potential emission are allowed and do not have to be evaluated or accounted in this permit. Note: The constituents of manually applied products have no expected potential emission if they are not spray applied and do not have a fine particulate consistency exposed to wind.
4. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.

Bulk Painting and Abrasive Blasting

5. Bulk painting operations include spray painting, brush and roller painting, cleanup activities, and mixing of paints and solvents on significant equipment and structure painting. The surface coating operations shall comply with the following requirements:
- A. High-volume, low-pressure spray equipment and/or airless spray equipment, or other equipment that is demonstrated to have the same or higher transfer efficiency, shall be used for all spraying of surface coatings.

SPECIAL CONDITIONS

Permit Numbers 83763 and PSDTX1230

Page 3

This equipment shall be operated and maintained within the limits set forth by the manufacturer.

- B. All paints and solvents shall be stored in closed containers when not in use.
 - C. All paint gun cleanup shall be performed by discharging the cleaning solvent into a container. The collected material shall be either recycled or properly removed from the plant site in accordance with all state and local regulations.
 - D. All unused paint, used solvents, and cleanup rags shall be stored in sealed containers until either recycled or properly removed from the plant site in accordance with all state and local regulations.
 - E. Paint and spray rate info for all spray equipment and bulk painting at the site shall be accounted for daily and must include:
 - (1) each coating and solvent used;
 - (2) the hours spray equipment was used; and
 - (3) the location spraying took place.
 - F. Bulk painting emissions shall be estimated and recorded and the rolling 12-month emissions updated quarterly. Records must be available within 30 day of the end of each quarter.
6. Outdoor abrasive blasting at the site shall meet the following requirements:
- A. Blast media usage is limited to 1200 lbs/hr and may be coal slag, nickel slag copper slag, nut shells or industrial garnet or other similar low dust media provided that it does not contain:
 - (1) asbestos or greater than 1.0 weight percent crystalline silica; and
 - (2) the weight fraction of any metal in the blast media with a short term effects screening level (ESL) less than 50 micrograms per cubic meter as identified in the most recently published TCEQ ESL list shall not exceed the ESL metal/1000.
 - B. The MSDS for each media used shall be maintained on site.
 - C. Blasting media usage hours, location and rate shall be recorded daily.

SPECIAL CONDITIONS

Permit Numbers 83763 and PSDTX1230

Page 4

- D. Abrasive blasting emissions shall be estimated and recorded and the rolling 12 month total emissions updated quarterly. Records must be available within 30 day of the end of each quarter.
- 7. During painting and abrasive blasting no visible emissions shall leave the property.

Degreaser Requirements

- 8. The cold solvent cleaners shall meet the following requirements:
 - A. Use a solvent that has a vapor pressure less than 0.3 psia at 100oF, and is not heated.
 - B. Any solvent spray system shall produce a solid fluid stream (not a fine, atomized, or shower type spray) with a minimal operating pressure that is necessary to prevent splashing above the acceptable freeboard. The operating pressure shall not exceed 10 pound per square inch gauge.
 - C. The degreaser must maintain a freeboard that provides a ratio equal to or greater than 0.7, or a 4 inch water cover (solvent must be insoluble in and heavier than water). To determine the free board ratio, the freeboard height measurement is taken from the top of the degreaser to the top of the solvent level divided by the smallest width measurement at any height from the solvent level to the top of the degreaser.
 - D. Have a cover which must be kept closed whenever parts are not being handled in the cleaner.
 - E. Have an internal-cleaned parts drainage rack or facility, for enclosed draining under the cover and parts shall be drained for at least 15 seconds or until dripping ceases.
 - F. Porous or absorbent materials, such as cloth, leather, wood, or rope, shall not be degreased.
 - G. Leaks shall be repaired immediately, or the degreaser shall be shut down until repairs are completed.
 - H. Spills shall be cleaned up immediately. Towels, rags, or other absorbent materials used for cleanup shall be placed into sealed containers immediately after use and shall be kept in storage until properly removed from the site.
 - I. Degreaser tank cleaning shall be conducted in a manner so as to minimize fugitive emissions. Residue, sludge, or contaminated cleaning solution removed from the degreaser will be stored in covered containers until

SPECIAL CONDITIONS

Permit Numbers 83763 and PSDTX1230

Page 5

removal from the site and recycled or disposed of in accordance with applicable regulations. Containers of solvent shall not be disposed of or transferred to another party such that the solvent can evaporate into the atmosphere.

- J. A permanent and conspicuous label summarizing proper operating procedures to minimize emissions shall be posted on or near the degreaser.
 - K. Emission records for each degreaser shall be kept based on total solvent makeup, gross usage minus spent solvent disposal, and updated when the solvent is changed out.
9. With the exception of the MAERT emission limits, these permit conditions become effective 180 days after this permit application, PI-1 dated January 3, 2008, has been approved. During the 180 day period, the permit holder shall maintain records of MSS activities. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded.

Dated: November 30, 2012

Permits 83763 and PSDTX1230
Attachment A
Inherently Low Emitting Activities

Activity	Emissions
	VOC
Instrumentation/analyzer maintenance	X
Gas cylinder replacement	X
Open Container Sampling	X
Closed system sampling	X

Dated: November 30, 2012

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 83763 and PSDTX1230

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
SITE-MNT PAINT	Site-Wide Maintenance - Bulk Painting	VOC	21.12	7.3
		PM	6.09	2.1
		PM ₁₀	1.87	0.03
		PM _{2.5}	0.19	0.003
		IOC-U	0.10	0.008
SITE-MNT SHOPS	Site-Wide Maintenance - Spot Usage	VOC	34.35	9.5
		PM	0.06	0.004
		PM ₁₀	0.06	0.004
		PM _{2.5}	0.002	0.0001
		IOC-U	0.10	0.0012
		Exempt Solvents	3.5	1.7
SITE-MNT BLAST	Site-Wide Outdoor Abrasive Blasting	PM	3.43	0.20
		PM ₁₀	0.41	0.02
		PM _{2.5}	0.06	0.01
SITE-ILE	Site-Wide Inherently Low Emitting Maintenance Activities	VOC	0.21	0.10
EP-4	EDC Unit Degreaser	VOC	0.14	0.60
EP-6	Ethylene Glycol Unit Degreaser	VOC	0.14	0.60
EP-7	Olefins I Solvent Degreaser	VOC	0.14	0.60

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EP-9	Olefins II Solvent Degreaser	VOC	0.14	0.60
EP-10	PO II Solvent Degreaser	VOC	0.14	0.60
LL-EP-8	LLDPE/PO I Solvent Degreaser	VOC	0.14	0.60

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- IOC-U - inorganic compounds (unspeciated)
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: November 30, 2012